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Collaboration between co-resident parents

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Abstract

The majority of children in the UK live in households with two parents, yet most of the academic research on parenting focuses on the relationship between one parent and one child. More often than not, this one parent has been the mother. There is an expectation of father involvement in contemporary parenting, but the literature still tends to emphasise parenting as a one parent-one child interaction, measuring involvement of the father in terms of time spent with his child. The idea of collaboration, or collaborative parenting, drawing on research into coparenting in the US, considers the involvement of both parents with each other, with respect to the child, as an alternative way of conceptualising parental involvement. Collaboration is considered a useful concept, as it goes beyond the idea of parenting as being about time spent directly with the child. Unlike many factors which may predict child outcomes, a lack of collaboration could be addressed at the family level, through counselling or education.

The aims of the research were to develop an understanding of the way in which parents work together, looking in particular at how this is affected by social support; whether there are associations between parental collaboration and the availability of time for family and leisure activities, and feelings about the balance between work and home life; whether parents who collaborate are more likely to adhere to expert advice on parenting matters; and whether there are associations with a child's social, emotional and behavioural development. Emphasis was also placed on the methodology, as it entailed the development of a method for measuring the concept of collaboration, using data that was not designed for the purpose. The research was conducted through a combination of methods, comprising secondary analysis of data from the first four sweeps of the Growing Up in Scotland (GUS) study, and the conduct and analysis of 20 pairs of semi-structured interviews with parents who had

previously taken part in this study. A condition of the funding received from the Scottish Government was to make use of the GUS data.

The research found social support affected the process of collaboration in a number of ways: by enabling collaboration to take place; by removing the need for collaboration; by increasing the time available to collaborative couples; and by removing the need to plan ahead. Of particular note were the problems that were more likely to occur when couples neither collaborated, nor had support from outside the home. These are the couples who find that work impacts on their family the most. They are also the ones who are least likely to have time away from their children to do something for their own interest, and are the ones who are most likely to find it difficult to access advice. Collaborative couples tended to find more time available for activities with their children, as well as time for themselves.

Positive associations were demonstrated between collaboration and a child's social, emotional and behavioural development, but the strength of the association was not equal in all situations. When the mother was employed full-time, relatively strong associations were evident. When she was not in employment, and a number of other risk factors were present, relatively strong associations could again be seen. However, when the mother worked part-time, there did not appear to be any association between child behavioural development and collaboration. Associations were also demonstrated with the work-life balance of parents. Collaborative fathers professed less of an impact of the family on their work than non-collaborative ones. Similarly, collaborative fathers were less likely to say that long hours impacted on the time they had with their children than non-collaborative fathers, but there was no equivalent association for mothers. The impact of work on family was more likely to be lower for both parents when they acted collaboratively.

Declaration

I declare that this thesis is entirely my own work, and has not been submitted for any other degree or professional qualification.

Signed Date

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Foreword

On a personal note, I became a father for the first time in August, 2010, to twin boys. Shortly afterwards, my wife became seriously ill, and for the following six months, I was the main carer for both my wife and children.

I use the term “main carer” with caution, although it is one in common usage, appearing on applications for tax credits, as well as in the survey data, which I will be discussing in this thesis. It is not a term I feel is always appropriate, and denies a complete understanding of the varied and complex situations in which parents often find themselves. The use of such a black and white term implies an expectation by government officials that one person, probably the mother, will take on most of the responsibility for raising a child. This is something my wife and I wished to avoid. While there will be times when one parent has a greater involvement than the other, for health reasons, or through financial necessity, and we may take on distinct roles, playing to each of our strengths, we see ourselves as jointly responsible for everything to do with our children.

From the very beginning, the barriers to this type of parenting became obvious. At the NHS-run antenatal classes, I was one of only two men present at any of the meetings. This may have been for financial reasons, the mothers-to-be being entitled to time off work to attend, which the fathers were not offered, or it may simply be that some of the fathers who did not attend saw no need for their presence, continuing a tradition of lack of paternal involvement from previous generations. At the NCT antenatal classes, which we also attended, there was a different expectation, and everyone turned up in couples. However, when we were split into groups, there was a certain amount of joking amongst some of the men, which made me believe they felt parenting was something they intended to leave to their partners, and they were looking for confirmation from their peers that this was acceptable.

While peer attitudes may present some sort of barrier to joint parenting, which could be reaffirmed in the workplace, what I found the most surprising demonstration of

mistrust of paternal involvement took place in the hospital. At the time, this made me quite angry. After five days on the maternity ward, my children had still not been discharged, as they had initially had trouble feeding, although they were now ready to go home. My wife had been given a private room, and I was allowed to stay overnight with her and the children. During the night, she became very ill, and was taken into intensive care. The nurses on duty in the maternity ward said they would look after the children, while I went with my wife. After a couple of hours, I returned to the maternity ward, to check on my children, only to find they had been removed to the neonatal unit, and all of our belongings had been removed from the ward, into a visitor's room. Over the next few days, I made repeated enquiries about taking my children home, and was told again and again that they did not want to release the babies into the care of anyone other than the mother. While this may be sensible practice under certain circumstances, the boys' mother was not fit enough to look after them, and was not able to breastfeed, because the medication she had been given made her breast milk toxic to them. Eventually, the doctor on the neonatal ward allowed us to take the children home, although the decision appeared to be made on the basis that the boys' cot was needed by other babies. My wife was discharged from the cardiac ward before her doctor wanted, in order to satisfy the babies' doctor that the mother would be taking them home. The neonatal unit also wanted to make sure we would have *female* help when we got home, rather than simply help.

While UK government policy tends to be viewed as avoiding interventions in the family, clearly interventions are taking place when hospitals tell parents who has to take on what role. A similar situation arose when I made enquiries about benefits. As my wife was ill, I had to take a six month break from my studies to look after the family. This meant a six month break in my grant. When I spoke to a benefits advisor, I was told that the only way we could receive any help was if I were to give up my studies. My wife was receiving maternity pay at the time, and was told that, even though she was not fit to work, she would receive maternity pay, rather than sick pay. Had it been I who was ill, we would have received both maternity pay for my wife, and sick pay (if I were in employment, rather than studying) for me. Thus

we would have been financially much better off, and one of us would still have been able to look after the children. The situation is complicated by my student status, but the same principles apply if I were employed, that I would have to give up my work in order to receive benefits. Thus, there is an unwritten assumption within the benefits system that it is the mother who should be looking after the children, whether she is able to do so or not.

I should say that while I see systemic barriers to taking joint responsibility for our children, we have received some very positive help from both our health visitor, and from the children and families social work team, who recognised the difficulties we were facing. While I think our own situation does raise a number of issues for policy, these are not the focus of this thesis, although I would like to give them further consideration at another time. Being a parent has helped clarify some of the concepts I will be discussing during this thesis, and helped me understand the relevance of particular questions within the survey I shall be using (such as how much sleep do you, as a parent, get each night!). I hope my thesis will be of use to others, just as elements of the literature I have read during the course of my studies have been useful to me in my role as a parent.

Acknowledgements

I would like to thank my supervisors, Professor Lynn Jamieson, Professor Fran Wasoff, who retired during the course of this project, and Doctor Alison Koslowski, who stepped in, rapidly coming to terms with what I was attempting. The contribution of all three has been greatly appreciated.

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The forty people whom I interviewed deserve special mention, as without the generosity of their time, and their insights into coparenting, this thesis would have been much duller and less meaningful. Acknowledgement must also go to all the other parents who took part in the GUS study, for without them, there would have been no thesis at all.

This project, and the MSc that preceded it, were jointly funded by the Economic and Social Research Council, and the Scottish Government. Without their support, I would never have embarked upon the PhD process.

The help provided by our childminder, Susan, has been invaluable in providing me with time to devote to the writing of this thesis. Appreciation must also go to our health visitor, Louise, who fought hard for us while my wife was ill, and to the social work department who supported us.

Most of all, thank you to my wife, Louise, for putting up with all my ups and downs during this process, and to Vincent and Bernard for making life so joyful. This is dedicated to you, with the promise that I shall always do my best to act collaboratively.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ADHD	**Attention-deficit / hyperactivity disorder**
CAPI	**Computer Assisted Personal Interviewing**
CRFR	**Centre for Research on Families and Relationships**
DWP	**The Department for Work and Pensions**
GUS	**Growing Up in Scotland**
MCS	**Millennium Cohort Study**
MMR	**Measles, mumps and rubella**
OLS regression	**Ordinary least squares regression**
ScotCen	**The Scottish Centre for Social Research**
SDQ	**(Goodman's) Strengths and Difficulties Questionnaire**

Chapter 1 – Introduction

Almost 80% of children in the United Kingdom live in households with two parents (Office for National Statistics, 2011). Within this group, there is a diverse and complex range of circumstances: married parents, adoptive parents, multi-generational households, families living in poverty, families with both parents in full-time work, families with little connection to the place they live, stressed parents, and parents on the route to separation. What they all have in common, though, is the potential for two co-resident adults to work together in the parenting of their child or children.

Much of the academic literature on families focuses on interactions between one parent and one child (McHale, Kuersten-Hogan and Rao, 2004). While the involvement of the mother is not generally considered optional (Morrill et al., 2010), it is only relatively recently that fathers have become widely studied from a generative perspective, examining the contributions they make, rather than a deficit one, considering the impact of their absence (Doherty, Kouneski and Erickson, 1998; Hawkins and Dollahite, 1997; Hohmann-Marriott, 2011).

The study of coparenting in two parent households has only taken hold within the last 20 years, and has so far been largely restricted to the US psychology and family therapy literature (Feinberg, 2002; Feinberg and Kan, 2008; Gable, Crnic and Belsky, 1994; Margolin, Gordis and John, 2001; McHale, 1995; Schoppe-Sullivan et al., 2008). "Coparenting" has roughly been defined as "the ways that parents work together in their roles as parents" (Feinberg, 2002, p.173). The research tends to be

very focused on the internal workings of families, regularly making use of relatively small, clinical samples, and consequently failing to examine the larger context within which the families reside. In this thesis, while still focusing on families, I aim to pay greater heed to the larger picture, through the use of data covering the whole of Scotland, and in doing so, bring the concepts involved to a more general UK social science audience.

Research into coparenting tends to take place within a systems theory framework. In this way, families can be viewed as a series of interdependent subsystems, with the coparenting subsystem as the "executive hierarchy" of the family (Minuchin, 1974). From a family therapy perspective, focus on this executive subsystem appears to offer good potential for intervention (Feinberg, 2002; Feinberg and Kan, 2008; Morrill et al., 2010), as there are stronger associations between coparenting and child outcomes than there are between the overall parental relationship and outcomes for the child (Abidin and Brunner, 1995; Frosch, Mangelsdorf and McHale, 2000).

Coparenting should not be equated to egalitarian or equally shared parenting (Deutsch, 1999; Deutsch, Servis and Payne, 2001). Indeed, it should not be assumed that equally shared parenting is desirable for all families (Lamb, Pleck and Levine, 1987). From an economic or social exchange perspective (Becker, 1974; Nye, 1979) couples would go through a rational process to determine the roles each parent takes, based on the costs and benefits to the family or the individual family members (Futris and Schoppe-Sullivan, 2007). Such a process may form part of that which goes on between collaborative couples, but decisions should not be seen as necessarily rational in economic terms. Of more importance to notions of collaboration is the act of joint decision making, and taking joint responsibility (Van Egeren and Hawkins, 2004).

In many cultures, the roles that men and women take within the family are different. Men are often more involved in playful activities, while women more in a caring role (Craig, 2006; Craig and Mullan, 2011). Contributions to the family involve more than simply time spent with a child. Providing financially for the family, making

plans concerning the child, and ensuring she has a safe and secure environment can all be considered forms of involvement (Palkovitz, 1997). However, what makes such involvement collaborative, is when it is agreed by both parents, rather than decisions being made unilaterally.

Throughout the thesis, I make use of the terms "collaboration" and "collaborative parenting" rather than "coparenting". I do this for a number of reasons. Firstly, I do not wish to make the claim from the start that the concept I am studying is exactly the same as that referred to in the coparenting literature. Because the field of coparenting research is limited, it has not been addressed in the type of government survey data I have been using. Instead, I use the data to build a concept that reflects the same broad ideas, categorising parents as those who are more or less likely to act collaboratively. This methodology is an important part of the thesis, as, by approaching the subject in this manner, I am attempting to demonstrate the utility of government survey data in exploring areas for which they were never designed. Secondly, the term "coparenting" in British literature is more commonly understood to refer to the way separated couples work together in raising a child. I am studying only co-resident parents. Finally, in operationalising the concept, I draw on theories of collaboration from diverse sources, including education (Dillenbourg, 1999), and the study of organisations (Wood and Gray, 1991).

Different authors describe different dimensions to the concept. Feinberg (2003) describes four components: the "childrearing agreement", or the extent to which parents agree on various topics concerning how to raise their children, such as behavioural expectations and the child's emotional needs; the "division of labour", including childcare and household tasks, and responsibility for child-related issues; "support-undermining", or the extent to which parents respect and support each other's parenting, or undermine it through criticising or blaming the other parent; and "joint family management", controlling the exposure of children to conflict between parents, avoiding the triangulation of the child into parent-child coalitions, and finding an appropriate balance for the involvement of each parent with the child. Other authors define dimensions from a more negative perspective, looking, for

example, at the level of conflict between parents with respect to parenting, or the triangulation of children (Margolin, Gordis and John, 2001). Another commonly used dimension is that of "cooperation", which covers the exchange of information about the child, as well as the atmosphere of support and respect that is developed (Teubert and Pinquart, 2010). This is similar to the notion of "coparenting solidarity" (Van Egeren and Hawkins, 2004), which focuses on the positive emotions conveyed between parents about the child, or from parent to child about the other parent.

Drawing on theories of collaboration, I amend these, to create four slightly different dimensions. A "common understanding" of issues relating to one's children is recognised as an outcome of the process of high quality coparenting (Feinberg, 2002), whereas collaboration theory regards it more as an important part of the process, or even a starting point from which negotiations take place (Schrage, 1990). Having "common aims" or "common goals" (Friend and Cook, 1990; Sorenson, Folker and Brigham, 2008) is similar to the child-rearing agreement. I take the view of Van Egeren and Hawkins (2004) that division of labour with respect to coparenting should focus only on work created by the presence of the child, and combine this with more general direct involvement with the child, to consider a dimension of "joint involvement". The fourth dimension I have chosen is one of a "supportive relationship". While the coparenting literature makes it clear that the coparenting relationship is quite distinct from the marital relationship (Feinberg, 2002; Gable, Crnic and Belsky, 1994; Van Egeren and Hawkins, 2004), there is a lot of evidence to suggest that the two are associated (Belsky and Hsieh, 1998; Margolin, Gordis and John, 2001; McHale et al., 2000). Using aspects of the relationship between the parents as a proxy for measures of support-undermining and cooperation appears to provide a better overall picture of coparenting than ignoring this dimension because of a lack of direct measures.

The families I am studying all have children aged just under 3 at the start of the study. The survey data follows them for another 3 years, until the children are aged just under 6. A selection of the couples were interviewed by me, approximately two years later. This fits in with the Scottish Government's "Early Years Framework",

which runs from pre-birth to age 8 (Scottish Government, 2008a). The literature on coparenting tends to consider coparenting to begin when the child is born, although it is recognised that the relationship between the parents pre-birth may be a very good predictor of the quality of the coparenting to come (Van Egeren and Hawkins, 2004). For the first couple of years following the birth, assessing coparenting can be problematic, although a number of important studies do look at this period (Feinberg, 2002; McHale, 1995; Schoppe-Sullivan et al., 2008). Factors such as the birth itself, breastfeeding, and the greater government support for new mothers as opposed to new fathers makes the period of infancy somewhat unbalanced in terms of parenting, and it is often the mother who takes the lead, with the father following (McHale, Kuersten-Hogan and Rao, 2004). Once the child reaches the age of two or three years, differences in parenting styles are more likely to emerge (Feinberg and Kan, 2008), and it is regarding families with children of this age up until the start of school that the majority of coparenting research so far has taken place.

Traditionally, the state has followed a policy of non-interference within the domestic sphere. However, through the regulation of public life, such as employment laws, divorce laws, and the benefits system, decisions within households are influenced by government policy. Under New Labour in the first decade of this century, parenting education became a key feature of attempts to tackle social exclusion (Churchill and Clarke, 2009). Some would argue for the universal provision of coparenting classes around the time of birth, in a similar manner to the provision of antenatal classes, as they believe this would be of benefit to many children (Feinberg, Kan and Goslin, 2009). Others would argue for consideration of how state regulation alters power dynamics within households, and hence parenting roles (Cooke, 2007). Within this thesis I intend to show that there is an association between parental collaboration and a number of positive family outcomes, and that there are ways, through the provision of information, and the encouragement of family friendly working, that this can be promoted. The provision of parenting education to disadvantaged families goes beyond the scope of the research, but I would certainly argue that the benefits of collaboration should be considered in the development of future government parenting programmes.

In broadening the scope of research into coparenting, this thesis examines the associations between collaboration and a number of concepts, which will be discussed in more detail in subsequent chapters. These are social support from outside the immediate family; time available for leisure and family activities; the impact of work on family life and family life on work; adherence to "expert" advice on parenting matters; and a child's social, emotional and behavioural development.

Social support is barely considered in the coparenting literature, with ideas of support from outside the family being considered as independent of support from one's partner (Fagan and Lee, 2011). To my knowledge, the coparenting literature has yet to consider questions of time for work, family or leisure, or questions of adherence to expert advice. Associations with child development have been examined more widely, with most studies suggesting some benefits of coparenting (Teubert and Pinquart, 2010), although my approach takes into account a broader spectrum of potentially confounding factors than most.

Chapter 2 of this thesis examines the coparenting literature, as well as relevant more general texts on parenting. Chapter 3 provides a theoretical framework for this study, developing the concepts and associations mentioned above into workable research questions. Chapter 4 focuses on the methodology, examining the benefits of using a mixed-methods approach, and paying particular attention to the operationalisation of the concept of collaboration. Chapter 5 uses interview transcripts to look at the process of collaboration, and in doing so, aims both to illustrate the connection between collaboration as operationalized in the quantitative data, and collaboration as demonstrated by the interviewed parents, and to look at the relationship between social support and collaboration. The three subsequent chapters use data from the Growing Up in Scotland study, although these are supplemented by some illustrations from the interview transcripts. The theme of social support is also continued. Chapter 6 looks at adult outcomes of collaboration, and whether there is an association between collaboration and work-life balance, and feelings about the time available. Chapter 7 looks further at the process of collaboration, and how information and advice are utilised in informing parenting practices. Chapter 8 looks

at the association between collaboration and a child's social, emotional and behavioural development. Chapter 9 draws the thesis together, and looks at implications of these findings for further research and for policy makers.

Chapter 2 – Support from within and without the household: policy, literature and research into parenting in dual parent households

Since the last decade of the twentieth century, there has been a clear focus on families in UK government policy. The Conservative government in the 1980s did not consider families to be a distinct area for policy making, and parents were left to themselves to decide how to raise their children, constrained only by the expectations of the society in which they lived. At the start of the 1990s, under the leadership of John Major, there was a change in government policy towards the family, with the "Back to Basics" campaign seeking to bring family values to the forefront in a number of areas, such as education, criminal justice, and housing (Edwards and Duncan, 1997). With the New Labour government in 1997, there was further change, as the moral emphasis on children meant that all families became the targets of policy, rather than just those who were considered problematic (Gillies, 2011).

This shift in emphasis was driven by discourse on the responsibilities of citizens, as a reaction to individualism. Etzioni (1997) argued that individualism overvalues the rights of citizens compared to their responsibilities to society, negating their moral sense of what is right. At the same time, compulsion to follow traditional values is a potentially discriminatory restriction on individual freedoms. The idea of a "Third

Way", which sought to persuade, rather than compel, citizens to take an active part in society, became a central theme of the Blair government in 1997, as well as in other countries, such as the United States under the Clinton administration. Particular emphasis was placed on persuading citizens to look for paid work, to some extent overlooking other responsibilities, such as engaging in unpaid caring activities. Parents were expected to take responsibility for their children, though, for example, in dealing with antisocial behaviour, or truanting from school (Lewis, 2003; Powell, 2012).

Because of this, the boundaries between public and private life in the UK are no longer as distinct as they once were. Parents have contracts with schools, setting out what is expected of them, while schools put pressure on both parents and pupils to consider healthy living advice. The National Health Service similarly targets parents, with information on breastfeeding, vaccinations, sunscreen, and a wide range of other advice regarding child health and development. And both the government and the voluntary sector fund classes for parents, teaching them how to play with children, and promote positive behaviour (Gillies, 2011). With the change in government in 2010, such interventions in the domestic sphere have continued, with Conservative party rhetoric again stressing a return to family values, aiming to strengthen relationships within families, and to offer families more control over their own lives (Conservative Party, 2010). This is reiterated in the coalition agreement for the formation of the current Conservative-Liberal government: "The Government believes that strong and stable families of all kinds are the bedrock of a strong and stable society" (HM Government, 2010, p.19). The formation of such strong and stable families is to be achieved through a number of policies, including the encouragement of shared parenting, improving funding for relationship support, and reducing couple penalties in the tax system.

In Scotland, the devolved government has placed a similar emphasis on the responsibilities of parents. A focus on early intervention in the first few years of a child's life is reiterated, to avoid the need for greater interventions in later years (Scottish Government, 2008b; 2011). This naturally means a greater scrutiny of

families by health, social work, and education professionals, to identify and address ineffective parenting.

But what exactly is meant by "family values" and "shared parenting?" The term "family values" tends to be associated with two parent households, yet, given that most children live with both of their parents, such households are relatively under-researched. In his influential work, *Liberal Purposes*, William Galston suggests that married parents, living together, should be given preferential treatment by the state, on the basis that it benefits children and helps them to grow into good citizens (Galston, 1991). This has become a much debated position (e.g. Centre for Social Justice, 2012; Josephson, 2005; Struening, 1999; Young, 1995), which overlooks differences in the quality of parenting that may occur in dual-parent households. David Cameron's coalition government is quite clear, though, that "marriage should be supported and encouraged" (HM Government, 2012, p.16), and has set up a Relationship Support Division of the Department for Education to promote strong couple relationships.

"Shared parenting" is even more difficult to pin down[1]. For some, it means equally shared parenting, where both parents take on 50% of the responsibility for a child, and 50% of the time spent with her (Deutsch, 1999). A report published by the Equal Opportunities Commission frames it almost entirely in relation to increasing paternal involvement with their children, given the employment commitments of many fathers (O'Brien, 2005). The problem with these definitions is that they tend to focus on paternal time, and overlook all other aspects of parenting.

In this chapter, I shall look first at general research into parenting, noting the focus on the parent-child relationship, which means a second parent tends to get overlooked. I will then look at the way conceptions of mothers and fathers in academic writing have changed over time. In the third section, I shall consider research into coparenting, which offers a view of shared parenting, avoiding the

[1] The UK Government currently uses this term to refer both to the division of parenting post-separation (House of Commons, 2010), and to co-resident parents (HM Government, 2010).

focus on parental time, by looking at the way parents work together. I shall then move from support from one's partner to issues of informal support for parents from outside the home.

2.1 Overlooking a second resident parent

There is no rule that children should have two co-resident parents, even if the current UK administration is attempting to promote such family structures. Nor is there any requirement that biological parents should be the ones to do the parenting. Many single parents are very successful in helping their children develop and grow into young adults (Golombok, 2000), as are many grandparents who take on the parenting role (Hayslip and Kaminsky, 2005). In some non-Western cultures, it can be the norm to parent as a group, with all children within the village or tribe being nurtured by multiple adults (Ambert, 1994). The current norm in British, American, and other Western societies, however, is that children are cared for in a household with two adults.

Much of the literature and research on parenting appears to overlook the fact that there are normally two parents residing with every child. While it is only to be expected that research often focuses on minorities or disadvantaged groups, research concerning parenting in general still regularly overlooks the presence of a second parent figure. The literature on parenting styles (e.g. Baumrind, 1967, 1978; Darling and Steinberg, 1993; Pearson et al., 2010), which has influenced UK government thinking on positive parenting in recent years (Churchill and Clarke, 2009) concentrates on the parent-child interaction. While acknowledging that there are often two parents available, each of whom may have a different way of interacting with the child, the interaction between these parents is ignored. Similarly, research into particular parenting practices, such as reading with a child (e.g. Bus, and van Ijzendoorn, 1995; Dale et al., 1996; Landry et al., 2012), often fails even to acknowledge the existence of a second parent, and tends to consider only the parent-

child interaction. More often than not, the interaction being studied is with the mother. Anderson's demonstration that child behaviour has greater influence on parent behaviour than parents do on children considered only the behaviour of mothers (Anderson et al., 1986). Even in the fatherhood literature, the father-child interaction tends to be discussed in isolation from the mother, with involved fathering being measured purely in terms of time spent with the child (Lamb, 2000).

There may be good reason for this apparent oversight. Parenting is defined in relation to the child or children that are being parented, not in relation to another parent. Activities such as reading do not require two parents, and those wishing to promote such actions would be unwise to target only two-parent families. In research, there are both financial and time costs in interviewing, so it is common practice to only ascertain responses from one adult per household. When such research is on parenting, it is normally assumed that the mother is the more involved, and so it is her opinions that are sought. Focusing on the parent-child interaction avoids the need to get involved in discussions about family structures, but at the same time fails to place this interaction within a wider context. It could be argued that a professional focus on the parent-child relationship allows all families to be treated equally in parenting interventions, but on the other hand, it could be argued that this fails to take into account the individual circumstances of each household.

Many studies have shown that outcomes for children living in single parent households are worse than for those living in households with two married parents (Brown, 2010), and that this has repercussions for subsequent generations (McLanahan and Percheski, 2008). However, the relationship is not always straightforward. For example, research has shown that an adolescent who is close to his or her non-resident father is likely to have higher self-esteem and show fewer signs of delinquency than one who is not close to a resident father (Booth, Scott and King, 2010). The reasons for such differences are manifold, and not necessarily within the control of the resident parent or parents. Economic resources certainly play their part, and those living in income deprivation, a much greater proportion of whom are single parent households than across the population as a whole, find it

harder to provide for their family, and are more likely to be subject to stress (Amato, 2005). Going beyond the socioeconomic circumstances, one could theorise that household structure also plays its part. Outcomes for children of reconstituted families are little different from those of single parents (Manning and Lamb, 2003), so the number of parents alone does not explain the difference. After accounting for the family structure and the family's environment, what remains are the relationships and interactions between the individual family members. While direct parent-child interactions and relationships clearly have an effect on the child, so too does the inter-parental relationship, and the interactions that go on between the adult household members (Gerard, Krishnakumar and Buehler, 2006; Harold, Aitken and Shelton, 2007). Of particular importance appears to be the parental interactions with respect to the child (Margolin, Gordis, and John, 2001).

2.2 Parental roles as viewed by the social scientist

In recent years parental roles have become less distinct and to some extent, interchangeable, in the academic literature, although this is perhaps, in part, simply a return to the pre-industrial position, when it was normal for both parents to work from home (Seccombe, 1993). While fathers are now viewed as having many roles, with the nurturing of children being one of the main ones, this has not always been the case (Lamb, 2000). In early historical periods, it has been suggested that fatherhood was often tied up with statements of power. Fathers in classical Rome, for example, had little involvement with their children, but possessed them, through a legal adoption process, whether they were biologically their own or not, as an indication of manhood and status (Kraemer, 1991). In pre-industrial periods, in Western Europe and America, the father role was viewed predominantly as one of moral teacher, ensuring children gained appropriate values through the study of the bible. This role was passed to mothers in the nineteenth century, as employment took fathers out of the home, leaving mothers to perform all the household management and childcare (Scott and Tilly, 1975).

This ideal of father as breadwinner came to an end following the Great Depression, and was replaced by father as role model. For many individuals, this may have been the same thing, except that high levels of unemployment in Europe and America forced fathers to demonstrate their masculine identities in other ways. The Second World War sealed this view. While war time propaganda promoted images of the returning father as a hero (Rose, 2004), writing about fathers after the war was less concerned with such positive role models, as by the negatives caused by their absence (Pleck, 1998). This "deficit" model of fatherhood (Doherty, 1991) or "role-inadequacy perspective" (Hawkins and Dollahite, 1997), concerning absent, emotionally lacking, and uninvolved fathers, remained the dominant image until the 1970s, when academics began to look at the more positive competences of fathers. Of course, the lived realities for most fathers were far from the narrow conceptions painted by academics or by political propaganda. Historical records suggest that during the time that social scientists were viewing fatherhood in such a blinkered way, most British working-class fathers were very much involved with their children, playing with them and educating them, even if their involvement was less than that of mothers (Bourke, 1994).

A focus on "generative", "new", "involved" or "intimate" fathering emphasised the abilities of fathers to nurture their children (Dermott, 2003; Hawkins and Dollahite, 1997; Hobson, 2002). Such focus, combined with the much greater availability of time-use data, has led to concepts of "good" fathering being measured purely in terms of time spent with children (Lamb, 2000). The role of father as breadwinner, though, does not have to be in complete opposition to the role of father as carer. Research using data from 14 EU countries has shown that fathers who spend more time with their children also tend to earn more per hour than less involved fathers (Koslowski, 2010). In policy discussions, the rationale for father involvement is often stated in terms of gender equality for the mother in the labour market, rather than any notion of what may be good or bad parenting (e.g. Bianchi, 2011; de Laat and Sevilla-Sanz, 2011; Hegewisch and Gornick, 2011).

In many studies, the quantitative methodology employed could be said not so much to be measuring positive fathering, but degrees of absence. While time-use studies may be able to provide estimates of direct father *interaction* or *engagement*, and sometimes the *accessibility* of fathers to their children, when they are available to the child, though not directly interacting with them, measurement of *responsibility*, the third type of involvement suggested by Lamb, Pleck, Charnov and Levine (1985, 1987), is much more difficult. Not all involvement can be measured in hours. For example, monitoring a child's development, planning for his future, and worrying about him all imply deep involvement, but would be unlikely to appear in any slot in a time-use diary (Palkovitz, 1997).

Throughout all this period when father's roles have been seen to change, a mother's primary role has remained that of caregiving and protection. Even though mothers spend more time in play with their children than fathers do, it is the fathers who are defined by the playful role, as they spend a greater proportion of their interactive time in play (Lamb, 2000). When mothers go out to work, there is still the expectation in the UK that they will be the primary carer for their child (McKie, Bowlby and Gregory, 2001). This has implications both in the workplace and at home. Women are more likely than men to be in part-time employment, with less of an attachment to the labour market, and lower wage rates (Bowlus and Grogan, 2009). On returning home, women then may find themselves taking on a "second shift" of parenting and housework (Hochschild and Machung, 1989), supported by their children, who are more likely to think it unfair for a man to do the same (Sinno and Killen, 2011).

While literature on maternal absence, or maternal deprivation (Bowlby, 1951), demonstrated similar negative effects to those described in the literature on father absence, the impact on the study of mothering and fathering was different. Attachment theory (Bowlby, 1958) led to a focus on mothering that excluded fathers (Lamb, 2000).

An alternative strand of parenting research seeks to promote gender equality, by highlighting the expectations placed on parents because of their sex, and showing that traditional roles within the family are not inevitable (Ferree, 1990). It is often considered that women are better equipped than men to take on a nurturing role, either because of natural or socially created differences between the sexes. However, single fathers tend to act in a way akin to that which is commonly expected of mothers, because they recognise this is what is most beneficial to their children, given their circumstances (Risman, 1987). Similarly, research into the parenting of same-sex couples shows that parents are adaptable to their situation, with men being quite capable of taking on the typical mother role, and women acting as fathers (Biblarz and Stacey, 2010).

While parental roles are not fixed according to gender, constraints do remain in place. An individualist argument for a lack of paternal involvement would highlight the need for parenting education aimed at men, to compensate for the knowledge and expectations they gained from being nurtured as a child only by women. A microstructural argument highlights the need for workplace equality, in terms of pay and leave policies, as well as a change in societal attitudes, so that parents do not have their choices forced by external structures (Risman, 1987). In countries where maternity leave is long, the segregation of roles is likely to be reinforced following the birth of a child, with women taking on a greater share of childcare and housework. Where men are eligible to take parental leave, and public childcare is more readily available, women are likely to do less of this type of unpaid work (Hook, 2006; 2010). In all countries included in Hook's study, though, the share of such work was uneven, with women taking on the greater part. Other researchers draw weaker conclusions. Smith and Williams (2007) found that a strong positive correlation between parental leave arrangements and time spent by fathers with their children in 16 European countries actually became negative (though not significant) when Scandinavian countries were removed from the analysis.

In the UK, criticism has highlighted not just the limited paternal leave and lack of affordable childcare, but also the targeting of employment policies mainly at women,

to help them access the labour market, rather than at men, to enable them to spend more time with their families (Brannen and Lewis, 2000). Since 1997, childcare services and paternity leave have improved, although not by as much as many parents would have liked. Flexible employment initiatives have been taken up mainly by women, and nothing has been done to tackle the long-hours culture among male employees that makes shared or collaborative parenting difficult (Lewis and Campbell, 2007).

2.3 Coparenting

At the birth of a child, relationships between the new parents tend to shift. There are changes in the division of labour, brought about by the overall increase in domestic labour required. There is also increased conflict between partners, and less time for companionship (Cowan and Cowan, 1995). Thus there is a need for new parents to coordinate their new (and old) responsibilities, and to overcome their difficulties, for which not all are equipped. For various reasons: the attachment gained from carrying a child, the ability to breastfeed, the disparities in maternity and paternity leave, and the expectations and norms of society, mothers tend to find themselves taking on a greater share of the childcare in the initial months, with fathers offering support, rather than taking the initiative (McHale, Kuersten-Hogan and Rao, 2004). While such an imbalance can be expected, couples have to make conscious efforts to ensure equality within the coparenting relationship.

Positive coparenting involves perceptions of fairness with the division of parenting work, but there is no reason why labour should be shared equally. Certain writers argue that equally shared parenting is a demonstration of the principle of equality in the home (Deutsch, 1999), but a 50:50 split is not necessary to achieve perceptions of fairness.

Shared parenting has been a goal of policy makers in Sweden for many years, and more recently so in Norway. Gender equality policy in both countries seeks to ensure both men and women have the same rights, responsibilities and opportunities in all aspects of life, including with their children. Measured in terms of division of labour, these policies appear to fall short of their targets (Bernhardt, Noack and Lyngstad, 2009). It has been suggested that this is not necessarily a problem with policy, but more a lack of support for the policies from employers (Haas and Hwang, 2000). In highlighting the shortfalls, however, these studies appear to assume that having equal rights, responsibilities and opportunities as parents is equivalent to sharing parenting time equally.

Coparenting research takes a different view, while still being compatible with an equalities agenda. Coparenting involves communication, to achieve a mutual understanding of the child and each other's needs, and agreement on the construction of a working partnership (Feinberg, 2002). Indeed, parents can occupy quite different roles, and still achieve a successful coparenting relationship (Buckley and Schoppe-Sullivan, 2010).

Barriers to forming a working parental relationship are not uncommon. Particular beliefs or expectations may get in the way, as may depression or stress (Belsky, Crnic and Gable, 1995; Belsky and Hsieh, 1998). When pre-birth expectations of parental roles are not met, relationship problems are more likely to occur (McHale et al., 2004; Voydanoff and Donnelly, 1999). Mothers themselves may deliberately act as a "gatekeeper" to father involvement, in effect choosing not to allow the father to take on as full a role as he may prefer (McBride et al., 2005) or dictating the type of role he is allowed (Jia and Schoppe-Sullivan, 2011). Various reasons for this type of behaviour may apply: a need to validate one's identity as a mother, a lack of trust in one's partner abilities or standards, or a belief that mother and father roles should be differentiated (Schoppe-Sullivan et al., 2008).

The history of coparenting research begins with the family therapy movement in the 1950s, although the term "coparenting" did not take hold until the late 1970s, when it

was used to describe working relationships between parents post-divorce (McHale and Kuersten-Hogan, 2004). Throughout the 1980s and 1990s, a body of literature began to build demonstrating problems for children whose parents did not cooperate with each other when they were no longer living together, and the advantages that were available to those whose parents did (Amato and Gilbreth, 1999; Bronstein et al., 1994; Buchanan, Maccoby and Dornbusch, 1991; Visher and Visher, 1989). Such cooperation is characterised by low levels of discord: minimal arguing or emotional outbursts, making it easy to allow the non-resident parent to see the child, with no threats to withdraw contact privileges, and generally allowing the other parent to be the parent they want to be; and high levels of cooperative communication: frequent talking about the children, and coordination of rules about bedtime, etc. (Maccoby, Depner and Mnookin, 1990). It is this isolation of the parenting role from the general relationship between the parents that has led to the study of coparenting between co-resident parents, beginning in the mid-1990s.

It is easy to see how such concepts of cooperative coparenting between separated couples translate to the co-resident situation, and one can theorise that children with parents who do not argue in front of them, and coordinate rules and frequently talk about them will also have improved outcomes. Indeed, the research into co-resident coparenting, which so far has largely been restricted to the United States, has shown many benefits to the children of collaborative parents (Teubert and Pinquart, 2010). The research, however, mainly takes place within the fields of psychology and family therapy, which have particular standards that are not exactly the same as those for sociology and social policy within the UK, and tends to focus on the absence of positive coparenting characteristics, or the display of negative ones, rather than on ideal coparenting behaviour. Most studies examine coparenting during the first few years of a child's life only, so there is little evidence as to how the coparental relationship develops. Analysis tends to be quantitative, but based on relatively small samples. Of the 59 studies included in Teubert and Pinquart's meta-analysis, only one had a sample size of greater than 650, and this was treated as an outlier. This means that it is difficult to apply controls and to obtain statistically significant findings. Thus, it is not possible to always place the results in the context of, say,

financial deprivation or parental employment. Samples are also often clinical samples, consisting of families who have been in contact with a particular hospital, either for the birth of a child, or another reason. Thus there is the potential for bias within the sample that is less likely to be present in a random sample. A lot of the research is based on short observations of interactions between the two parents and their child in an artificial setting, when parents cannot be expected to act exactly as they would when not under observation (e.g. Gable, Crnic and Belsky, 1994; McHale, 1995). On the other hand, much of the research consists of the primary collection and analysis of data, for the specific purpose of understanding associations between coparenting and other inter-related concepts, such as marital quality and family structure. Consequently considerable care has been taken in building appropriate scales for the measurement of each concept. So far, the Early Childhood Longitudinal Study in the US is the only major birth cohort study to contain multiple questions measuring coparenting, but even so, it was not designed with this purpose in mind, so the particular concepts are not necessarily fully captured (Hohmann-Marriott, 2011).

There is no clear agreement on how to assess coparenting, or even on an exact definition. One commonly used definition is "the ways that parents work together in their roles as parents" (Feinberg, 2002, p.173; Van Egeren and Hawkins, 2004). Feinberg (2003) goes on to say that "coparenting occurs when individuals have overlapping or shared responsibility for rearing particular children, and consists of the support and coordination (or lack of it) that parental figures exhibit in childrearing" (p.96). Thus "coparenting" is a process. A positive coparenting relationship between two adults is often described as a "parenting" or "coparenting alliance" (Abidin and Brunner, 1995; Weissman and Cohen, 1985).

Several attempts have been made to break this down into different dimensions. Weissman and Cohen (1985), in describing both separated and intact but disrupted families, discussed four elements required for a solid "coparenting alliance": investment in the child by both parents; the valuing by each parent of the other's involvement with the child; respect for the other parent's judgements about raising

the child; and a willingness to communicate information about the child. Feinberg (2002, 2003) identifies four different components: the extent of agreement about childrearing, such as expectations of behaviour, or priorities for educational development; the division of household labour, including childcare and responsibility for child-related medical or financial issues; support or undermining of one's partner in their parenting, affirming their competences as a parent and respecting and upholding their decisions, or the opposite, criticising or blaming; and the joint management of interactions within the family, controlling parental behaviour and communication towards each other, and limiting the child's exposure to any negative side of this, avoiding the child being made to take sides, and achieving a balance in each parent's roles during triadic interactions with the child. Feinberg and Kan (2008) introduce a further component, parenting-based closeness, the shared celebration of a child's development and enjoyment of working with one's partner. Van Egeren and Hawkins (2004) offer variations on these dimensions: coparenting solidarity, the enduring quality of growing together as parents; coparenting support, which could be considered more in terms of strategies for achieving goals than simply respecting decisions; undermining coparenting; and shared parenting, the division of childcare labour and perceptions of fairness about this.

Over the many different studies including analyses of coparenting, researchers tend to limit themselves to at most three dimensions or aspects of these dimensions, rather than addressing the coparenting process as a whole (Teubert and Pinquart, 2010). The studies often examine relationships between highly interrelated concepts, such as coparenting as a link between marital conflict and parenting (Margolin, Gordis and John, 2001; Morrill et al., 2010) or coparenting in the context of family structure and affective climate (Schoppe, Mangelsdorf and Frosch, 2001). The operationalisation of concepts therefore becomes absolutely key to the interpretation of findings.

Most of the research makes use of established questionnaires, such as the Parenting Alliance Inventory (Abidin and Brunner, 1995). The validity of such scales tends to be reported according to high correlations with previous scales, with internal consistency being reported by high values of Cronbach's alpha. Thus, there is often

an acceptance that earlier measures are applicable in a new context, which is not necessarily so when teasing out the association between coparenting and other obviously related concepts, such as aspects of a couple relationship. Furthermore, very high values of Cronbach's alpha, as are sometimes reported, indicate a degree of redundancy in the questionnaire, and that items on a scale are so similar that the whole of a concept may not be captured (Clark and Watson, 1995; Streiner, 2003). Examples of operationalisations that do not fully hit the mark can be found in the work of some of the most respected researchers in the field. McHale (1997) uses questions on discipline within the family group: how frequently the respondent disciplines the child when both parents are present, asks the partner to discipline, takes a back seat in disciplining, and undoes the partner's disciplinary actions. The first three of these are clearly intended to identify balance during triadic interactions, but the way they are used results in simply a "reprimand" dimension being added to the concept of coparenting, identifying families that discipline their children more frequently.

Despite the methodological issues raised about some of the research, there is a large body of evidence to suggest that a strong coparenting alliance, or elements of such, has positive effects for children, and problems in coparenting have negative effects. For example, coparenting conflict, when a child was 8 to 11 months old, was found to be associated with more aggressive behaviour in the child 3 years later (McHale and Rasmussen, 1998). Triangulation of a child aged 2 was shown to be associated with depression and anxiety 5 years later (Jacobvitz et al. 2004). Supportive coparenting when a child was aged 3 was linked with fewer behaviour problems one year later (Schoppe, Mangelsdorf and Frosch, 2001). Effect sizes, however, tend to be small (Teubert and Pinquart, 2010).

While earlier research has suggested an effect of the quality of a marital or cohabiting relationship on a child (e.g. Davies and Cummings, 1994; Howes and Markman, 1989), the effect on parenting and on child outcomes of confident coparenting, or particular aspects of such, appears to be stronger than that of the adult relationship alone (Abidin and Brunner, 1995; Frosch, Mangelsdorf and

McHale, 2000; Jouriles et al., 1991). Thus there are arguments to suggest that, when attempting to deal with families in difficulty, there are benefits in addressing the coparenting relationship rather than addressing either the parenting or the adult relationship (Feinberg, 2002; Feinberg and Kan, 2008; Morrill et al., 2010). Indeed, as the coparenting relationship may well last longer than the adult one, this may be even more important. Families considered at greater risk of difficulties, such as those in which the father is an adolescent, and hence more likely to be disengaged, appear to gain more from coparenting than do those with an adult father (Fagan and Lee, 2011). Thus there are implications not only for family therapy practitioners, but also more generally in considering the prevention agenda.

Very few attempts have been made to assess the benefits of coparenting education. One experiment with the provision of such to a sample of parents-to-be in the United States has had some limited success, with the greatest impact found among lower-educated families, and those in which the father reported a degree of insecurity in close relationships (Feinberg and Kan, 2008; Feinberg, Kan and Goslin, 2009). Another project had similar success with African American and Hispanic families (Fagan, 2008). Further research in such areas is clearly required before the benefits of coparenting education can be extolled.

2.4 Networks of social support

While an important aspect of coparenting is the support of one's partner in their parenting, support can equally come from outside the household. This may act as a replacement for coparenting support, or it may complement it. Many parents of young children gain support from friends, neighbours, other family members, work colleagues, parents of the children's friends, informal groups, and more formal services, and that support can take many forms (Ortega, 2002).

Perhaps the most obvious example of social support is the provision of childcare, but other examples include emotional support and financial assistance. Social support has been conceptualised in a number of different ways, but definitions tend to be concerned with the sharing of resources. It is sometimes confused with the related concepts of social networks or social capital. While social support requires a social network, analysis of networks is more interested in the links between members of a network than with the flow of resources to an individual (Smith and Christakis, 2008). Social capital is about the resources or potential resources within an entire network, and social support is just one possible outcome of social capital exchanges (Bourdieu, 1993; Li, Pickles and Savage, 2005; Lin, 2001).

The size of one's network of close friends is often used in research as an indicator of the availability of support, but it says nothing about the type of support that may be on offer (Smith and Christakis, 2008). Williams, Barclay and Schmied (2004) conducted a review of the how social support was defined in the sociological literature, with particular attention to the parenting literature. They identified a number of different categories of support. "Emotional resources" can include "instrumental emotional support", helping the recipient overcome an emotional burden; "coherence support", helping the recipient to gain confidence; "validation", demonstrating that someone believes in the recipient and their actions; and "inclusion", providing the recipient with a sense of belonging. Material resources, such as goods or money, can also be offered, as can labour resources, for example, help with cooking. Time is another important resource, simply offering companionship or accompanying the recipient to a meeting, although it is not always possible to distinguish such support from emotional support. Cognitive resources, ideas and information, may be offered, to help the recipient think through a particular problem. All of these categories apply to both formal and informal supports, and could equally apply to support within a coparental relationship.

It is well established that social support offers protection against stress and depression, allowing mothers to raise their children in times of difficulty (e.g. Crockenberg, 1981; Cutrona and Troutman, 1986; Lee et al., 2009), and encourages

fathers to become more engaged with their children (Fagan and Lee, 2011). Social support may also protect individuals against some of the effects of abuse from a partner (e.g. Coker et al., 2002), and have a positive influence on more normal relationships, by helping individuals to overcome problems with their partner (Brown, Orbuch and Maharaj, 2010). At the same time, however, supposedly supportive networks, particularly extended family, can be the cause of problems within the relationship (Sprecher et al., 2006).

Support from friends and extended family can also influence parenting competence, possibly due to the psychological benefits of such support (Belsky, 1984), or possibly through the provision of advice and information, or standards against which parents can compare themselves (Smith and Christakis, 2008). On the other hand, a lack of social support has been shown to be associated with parenting problems, such as child maltreatment (Seagull, 1987).

Most of the literature on social support for parents is concerned with those who may be at risk of social exclusion, and those who may require formal support: parents of children with disabilities, parents on low incomes, single parents, and parents with health problems (e.g. Cook, 2012; Dalgard, Bkork and Tambs, 1995; Fagan and Lee, 2011; Guralnick et al., 2008; Mitchell, 2007). While formal parenting support is vital to some, many parents are not aware of what is available. Fewer than half of those responding to a survey of primary school parents in England were aware of the existence of ParentLine[2], while a further 15% proposed such a scheme as something that would be useful to parents (Johnson et al., 2005). Formal support was often viewed as good for the provision of information and advice, or skills training, but where it really paid dividends was when formal support groups, such as those for new parents, became informal friendship groups, which could continue to offer support well beyond the end of any formal meetings (Stone, 2003).

[2] ParentLine is a free, confidential telephone service, offering information, advice and support to parents 24 hours a day, 7 days a week, throughout the UK.

Perhaps the most important providers of support, especially material or practical support, to many parents of young children, are their own parents, the children's grandparents (Miller and Darlington, 2002; Wheelock and Jones, 2002). Around 60% of 6 year old children in Scotland live within 20 to 30 minutes' drive-time of a grandparent to whom they are emotionally close. The number of grandparents living nearby, however, is not the same for all groups, with the parents of older parents or wealthier parents being less likely to live within easy reach (Jamieson, Warner and Bradshaw, 2012).

There is a potential to take excessive advantage of the generosity of grandparents. Feelings of obligation often exist on the part of a grandparent to provide support, irrespective of the relationships between the generations (Giddens, 1990; Morgan, 1999). Where relationships are not particularly good, grandparental support can actually have a negative effect on both child and mother adjustment (Lavers and Sonuga-Barke, 1997). However, most grandparental support is provided because of strong emotional bonds between grandparent and parent, or grandparent and grandchild (Mitchell and Green, 2002; Ross et al., 2006), and grandparental support is very much valued, with the free childcare provided helping mothers to take up paid employment opportunities (Wheelock and Jones, 2002).

Concerns have been raised, however, about the effect of increased childcare responsibilities on grandparents themselves. Contradictions exist in both British and European policy, encouraging older people back into employment, at the same time as expecting them to play a role in childcare for working mothers (Gray, 2005; Smith Koslowski, 2009). Around one-fifth of grandmothers in the UK provide 10 or more hours of childcare every week, while those who do provide childcare are most likely to be of working age, but not in employment (Wellard, 2011).

The strongest ties often form along matrilineal lines (Mitchell and Green, 2002), and with this there is a potential for fathers to become excluded from the parenting process. The involvement of fathers, much more than mothers, with their children, is influenced by their context, the expectations of those around them, including friends,

family and work colleagues (Doherty, Kouneski and Erikson, 1998). Thus, where fathers are not supported in their parenting by grandparents or others in the community, the process of collaboration between parents can break down (Futris and Schoppe-Sullivan, 2007). Indeed, it is often the mother who forms bonds within the neighbourhood (Boyce, 2006), such that the only support coming directly to the father is from her.

Not every family is in a position to receive the sort of social support it requires. For reasons of distance from friends and family, poor health, a distrust of those who might offer support, a concern about invasion of privacy, or poor family relationships, which one might not want to reopen, individuals or couples may choose not to accept offers of support, or may not be given offers at all. In the provision of support, there is often the expectation of reciprocity, at least in the eyes of the recipient, giving vulnerable families who feel unable to return favours another reason to turn down support (Cook, 2011). While the likes of Beck and Ritter (1992) have argued that the growth of individualism has brought an end to local communities, providing support for each other, Boyce (2006) shows that this is not the case, at least on one low-income estate. Family ties remain a key part of the neighbourliness demonstrated in Boyce's study, though, and others have suggested that support from neighbours is less common than support from family or friends (Ortega, 2002).

2.5 Conclusion

One of the roles of government that has gained greater attention in recent years is in support of families. With that greater attention, there has become greater scrutiny of families considered at risk, and there has been more prescription as to how parents should raise their children. Phrases such as "shared parenting" have been coined, with no clear definitions as to what this is.

The academic literature on parenting tends to focus on the parent-child interaction, overlooking the second parent, even though most children are raised in two-parent households. Where shared parenting is discussed, it is mainly done so in terms of parental time with the child.

Coparenting offers an alternative view, with a focus on the interaction between the two parent figures, and the way they support each other in their parenting. The research into coparenting seems to suggest small but definite positive effects for the child in those families where the parents work together as parents.

The boundary between what is coparenting and what is external support is not fully defined. Two parents living together are clearly in a coparental relationship. A neighbour who occasionally babysits is providing support. But the origins of coparenting research came from looking at the parenting of separated couples. A non-resident parent can be considered both as a coparent and as a source of external support. In fact, when one considers the possible definitions of support (Williams, Barclay and Schmied, 2004), there is no real difference between support provided by someone outside the household, and support provided by one's partner. Where coparenting extends the concept of support is in the ideas of joint responsibility, of joint understanding, of balance, and of growing together as parents.

For two parents to be fully engaged in raising their child, both government policy and social supports must encourage this. The evidence suggests that not all fathers feel they are as well supported as mothers. Women are more likely to be active in their local community, and hence gain support from neighbours. Differences in maternity and paternity leave allow mothers, but not fathers, to consolidate support networks they have built up, and can set couples on a trajectory, which it takes considerable effort on behalf of a couple to change. Coparenting, or collaborative parenting, does not have to mean equally shared parenting, though, just a certain level of communication and planning such that parents agree about their roles and how to achieve their parenting aims. The research into coparenting has so far been largely restricted to the field of psychology in the United States, but the evidence

suggests it is a concept worth considering in a broader context. In the next chapter, I shall look at coparenting and collaboration between parents from a number of theoretical perspectives.

Chapter 3 – Theoretical and conceptual underpinnings of couple collaboration

"Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem which it was intended to solve."

Karl Popper

Within the vast quantities of academic literature on the family, the concept of "collaboration" is rarely used. Indeed, because of the negative connotations of the word, stemming from the idea of "collaborating with the enemy" during the Second World War the term itself is often avoided in British and European academic texts (Mintzberg et al., 1996). However, as I shall demonstrate over the course of this chapter, the concept is an appropriate one to use to describe the process by which co-resident partners work together for the benefit of their children, giving rise to a number of questions worthy of further consideration.

Ideas of collaboration can be approached from many different directions. Systems theory (Minuchin, 1974) provides a useful framework for the analysis throughout this thesis, but it is important to note the contribution of other theories. The utility of systems theory, in its modelling of the family or couple as a whole unit, is also its weakness. Systems theory totally ignores the issue of gender, which is hard to overlook when considering roles within the family such as mother and father. It can

also never get down to issues of individual agency, which naturally affect relationships within the household.

While theories of the family have structured my thinking on the subject of collaboration, my initial interest was sparked by musing on some simple mathematical games, such as the prisoner's dilemma (see Axelrod, 1984). This suggested to me that there would be an advantage to parents in collaborating, as they could choose the better of two parenting options in any given situation. This gave rise to the consideration of collaboration in other fields of study, including inter-organisational collaboration theory, and collaborative education. These will be discussed to the extent I feel they have relevance to the family situation.

Before looking at theories relating to collaboration, I shall begin by building a working definition of the concept.

3.1 Definitions of collaboration

As stated in chapter 1, I use the terms "collaboration" and "collaborative parenting", rather than "coparenting" for three main reasons. Firstly the operationalisation of the concept that I will be using is not one that would instantly be recognised by researchers of coparenting, and therefore I do not wish to claim that the concept is exactly equivalent. This shall be discussed in the next chapter. Secondly, "coparenting" is often misunderstood to refer only to the way in which separated parents work together, whereas I use the term "collaboration" to refer to co-resident parents. Finally, working together for a particular aim is not something that is restricted to parents. Academics collaborate on journal articles. Organisations collaborate on infrastructure projects. Students collaborate on their learning. Thus, there is already a considerable body of theoretical work on the subject of collaboration, which allows one to approach the idea of parents working together from a different angle.

The Oxford English Dictionary (2012) defines the noun "collaboration" as "united labour, co-operation; *esp.* in literary, artistic, or scientific work". This definition provides a useful starting point, but does not capture the full meaning of the concept, failing to differentiate between "collaboration" and "co-operation".

The specific types of work mentioned in this definition imply a degree of creativity, which is expanded upon by Michael Schrage, who suggests that "collaboration is the process of shared creation: two or more individuals with complementary skills interacting to create a shared understanding that none had previously possessed or could have come to on their own" (Schrage, 1990, p40). In terms of parenting, the idea of creating something beyond that which a single individual could have created does an injustice to the thousands of single parents who raise their children as well as any couple could hope to. However, there are a number of ideas presented here that I will return to in defining the concept of collaboration between parents: those of "complementary skills", "interaction" and "shared understanding".

From an inter-organisational perspective, definitions tend to focus less on the creative nature of collaboration, but still retain the same basic concepts. Sorenson et al. (2008) describe collaboration as engagement "in an interactive exchange designed to fully achieve involved parties' objectives" and "the process of exchanging information, working together to understand problems, and bringing out all concerns so that problems can be resolved together in the best possible way" (p619). Again there are ideas here which will be considered later: "process", "purposeful interaction", "the exchange of information", "working together", "the raising of concerns" and "the solving of problems".

A further definition is provided by Friend and Cook (1990), which raises the issue of equality. Looking at school reform, they define collaboration as "a style for interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work toward a common goal" (p. 72). Such equality is not always recognised in the inter-organisational literature, where it is noted that partner organisations may be of differing sizes, and have few or many choices of potential

partner, which can set up a one-way dependency, and an imbalance in power. This imbalance is part of the consideration which leads to several authors making distinctions regarding the level of integration between the parties, with "collaboration" being a more integrated state than "coordination" or "cooperation" (Bailey and Koney, 2000; Gajda, 2004; Peterson, 1991; Wang and Xiang, 2007). Bailey and Koney suggest that in cooperation, "fully autonomous entities share information to support each other's organizational activities", whereas, in collaboration, "parties work collectively through common strategies. Each relinquishes some degree of autonomy toward the realization of a jointly determined purpose" (p6). Coordination lies between the two.

A similar distinction is made in the field of education between "collaborative" and "cooperative" learning. Cooperative learning is described as a "group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning" (Olsen & Kagan, 1992, cited in Oxford, 1997, p443). Collaborative learning is a similar concept, although taken from quite a different epistemological perspective. Dillenbourg (1999) states that "a situation is termed 'collaborative' if peers are more or less at the same level, can perform the same actions, have a common goal and work together" (p.7). There are a number of distinguishing features of the two concepts (Matthews et al., 1995; Oxford, 1997). The distinction I wish to highlight, however, is that of "responsibility". Cooperative learners are held individually responsible for their own work, while collaborative learners are held jointly responsible (Oxford, 1997).

A number of common themes emerge from these definitions, which one can build into a definition of collaboration between co-resident parents. First of all, *collaboration is a process*. Thus it is not a static object than can be easily described, but a continuous series of actions and interactions. This has implications for the way it can be studied, which will be considered in the next chapter.

Collaboration involves two roughly equal parties. In other areas of study, more than two parties may be involved, but, in looking at co-resident parents, the collaboration is between two parents only. The parents are roughly equal, in that, in most matters concerning the child, both are involved at the hands-on level. They are jointly responsible, and take decisions together. This does not imply that they have an egalitarian relationship or a non-traditional division of labour. Indeed, parents may choose to make use of their individual skills, for the benefit of the partnership, but this would be a considered choice, made by both parties.

Collaboration requires a greater degree of integration between the parties than does cooperation. "Cooperation" is a commonly used concept in the study of separated parents (e.g. Carlson, McLanahan and Brooks-Gunn, 2008; Kelly and Emery, 2003; Maccoby, Depner and Mnookin, 1990). Thus, a distinction can be made between autonomous, cooperative, separated parents, who are individually responsible for their children at different points in time, and integrated, collaborative, co-resident parents who are held jointly responsible. This does not imply, however, that all co-resident parents are collaborative. Indeed, the findings in chapters 5 to 8 are based on the assumption that a distinction can also be made between those co-resident parents who act in a collaborative manner and those who do not. On the other hand, one may expect that the majority of co-resident parents are cooperative with each other, at least in the commonly understood meaning of the term.

Collaboration involves shared goals. Goals can involve outcomes that are 18 years away, such as wanting a child to go to university (long-term, developmental aims), or 18 minutes away, such as wanting a child to sit at the table for the duration of his dinner (short-term, problem-solving aims). Either way, they can only be shared if they are expressed and understood by both parties.

Collaboration involves shared understanding. While the idea of "shared goals" can be viewed as the collaborating partners holding a common future view of the child, the idea of "shared understanding" is about the partners' present image of the child and her environment. Realistic goals can only be set if issues that may affect their

achievement are understood. For both partners to understand the issues, interactions between them must involve purposeful exchanges of information.

Collaboration involves communication. In order to gain a shared understanding and to formulate shared goals, ideas, plans and knowledge must all be communicated.

Finally, *collaboration involves support.* Raising children can often be a tiring and emotional process. For parents to work together successfully, they need to support each other. They need to respect each other's parenting skills. They need to feel able to raise concerns and they need to be able to solve problems. These are only possible when interactions between parents are supportive, rather than competitive or undermining.

Putting these elements together, one arrives at a definition of collaboration:

Collaboration is the process by which co-resident parents work together for the benefit of their children. Such process requires parents to form a common understanding of their children and their children's needs and common aims for the development of the children, to take joint responsibility for, and to both be involved with, the children and their activities, and to support each other in their parenting.

Some of the terms used in this definition may require further clarification, and this is done in chapter 4, where I look at the operationalisation of the concept of collaboration.

3.2 Theories and concepts relating to couple collaboration

The choice of theoretical framework has a significant impact upon the methodology used to conduct the research. Theories can be classified in a number of ways. As

previously stated, theories may be mainly concerned with individual actors, or with groups of more than one individual. This is referred to as the "level of analysis" (White, 2004). Exchange theory, for example, focuses on the motives of individuals, in their efforts to maximise rewards and minimise costs. Other theories, such as ecological theories consider several levels of analysis, up to the national or cultural context.

A second dimension in the classification of theories identified by White (2004) is the "source of causation": whether it is the internal dynamics of the family group that influences the external environment ("endogenous"), or whether larger social forces influence the workings of the family group ("exogenous"). Most versions of systems theory would fall into the first category, while most feminist theories would be an example of the second. An alternative way of conceptualising this dimension would be in terms of "structure" and "agency": whether individual family members are free to act and make their own choices, or whether the structure of the society within which they reside limits their choices and opportunities. This provides a less definitive distinction between theories, as many theories consider the power that individual agents draw from the wider structure (Callinicos, 2004).

A third dimension is the treatment of time: whether the theory is static or dynamic. Exchange theories are static, as they consider individuals to make similar choices irrespective of the stage of their life. An individual may think about both long and short term benefits, but the thinking is done at a single point in time. Life course theories are dynamic, as time is a clear causal agent. Obvious problems occur when examining a dynamic theory using static data.

Collaboration, as defined in the previous section, should be analysed at the level of the mother-father dyad. This agrees with the practice of most researchers of coparenting, although certain researchers and theorists feel it necessary to analyse coparenting at the level of the mother-father-child triad (e.g. Jia and Schoppe-Sullivan, 2011). This fits in with a systems theory framework, or an ecological one (Bronfenbrenner, 1979) if further layers are to be considered. Thus, the

operationalisation of collaboration, which will be discussed in the next chapter, uses data collected from both parents, but not the child. On the other hand, in looking at the process of collaboration, it is necessary to consider each parent as an individual. A number of theories will be considered for this purpose. Similarly with White's second dimension, multiple theories will be considered to examine both the influence of the parental dyad on the external environment, particularly their child, and the influence of the external environment on the family.

While the collaboration process may well change over time, because of data considerations, I will be assuming it does not change significantly over a four-year period. This assumption will be tested in chapter 5. Given this assumption, I will be concentrating on static theories. Looking at collaboration over the course of a relationship goes beyond the scope of this thesis.

The theories and concepts discussed in the following sections will be used to draw up a number of research questions to be considered in chapters 5 to 8. To begin with, I shall draw up a simple mathematical model of the advantage to be gained from collaboration.

3.2.1 A mathematical description of collaborative advantage

The notion of two parents working together for the advantage of their child can be put into simple mathematical language. Assuming one agrees that parenting has an effect on child outcomes, then one could express a child outcome (Y) as a function of parenting (X). Other factors, including the influence of other adults, such as grandparents, have been ignored in this model. This gives the equation:

$$(i) \qquad Y = f(X)$$

One could expand on this by describing parenting as a series of decisions or actions (X_i). The equation would then become:

$$(ii) \qquad Y = \sum f(X_i)$$

Introducing a second parent into this model, one would get:

$$(iii) \qquad Y = \sum (\theta_i f(X_{1_i}) + (1 - \theta_i) f(X_{2_i}))$$

where $\theta_i = 1$ if the first parent makes the i^{th} parenting decision or performs the i^{th} parenting action (X_{1i}), and $\theta_i = 0$ if the second parent makes a decision or performs the action (X_{2i}).

Non-collaborative parents will make decisions and take actions independently of each other. Collaborative parents, in a theoretical model at least, will make decisions jointly, and take actions which they have previously agreed. The equation for this model would be:

$$(iv) \qquad Y = \sum f(\max(X_{1_i}, X_{2_i}))$$

where X_{1i} and X_{2i} are ordinal variables representing the decisions or actions each parent would have taken if discussion with their partner were not possible, with higher values indicating better parenting options. It is assumed that the better option would be chosen after discussion, but it could be considered more appropriate to assume instead that the better argued option would be chosen, and this, ignoring any power dynamics within the relationship, would be the option with the best evidence to support it, the one that is most likely to agree with "expert" opinion.

Comparing equations (iii) and (iv), the outcomes for any given family cannot be worse if the parents act collaboratively. However, if one parent is very well informed about parenting matters, and they do most of the parenting, child outcomes will not be much different whether that couple act collaboratively or not. If neither parent is particularly well informed, they may well benefit a lot from collaboration, assuming their knowledge is in different areas, but outcomes may still be considerably below those for some non-collaborative couples.

The equations shown deliberately over-simplify things. No couple is likely to act in the perfectly collaborative way assumed in equation (iv). However, by combining equations (iii) and (iv), this type of modelling still shows that partial collaboration is better than non-collaboration.

External influences cannot be ruled out so easily, either. A couple who collaborate may well do so at the expense of other relationships. Better outcomes *may* be achieved if a mother turns to her own mother for confirmation of parenting practices, rather than relying on her less well-informed partner. Power dynamics may also influence the way couples choose options, for example, with a mother exerting her control over parenting matters. However, this would be an example of non-collaboration. Collaborative couples would be expected to act more equally.

3.2.2 Inter-organisational collaboration theory and its application to parenting

The largest body of work on collaboration, and the area which lays claim to "collaboration theory", is in relation to "inter-organisational collaboration" (e.g. Dyer and Nobeoka, 2000; Gray, 1989; Thomson et al., 2009; Wang and Xiang, 2007; Wood and Gray, 1991). The main premise of collaboration theory is that organisations collaborate in order to gain a "collaborative advantage" (Huxham, 1996; Huxham and Vangen, 2005). In certain formulations of the theory,

"collaborative advantage" equates to "competitive advantage" (Dyer and Nobeoka, 2000; Prahalad and Hamel, 1990), but where public sector organisations are involved, this is not true.

Collaborative advantage

Five potential advantages to collaborators are listed by Huxham and Vangen (2005, pp.4-5): access to resources; shared risk; efficiency; co-ordination and seamlessness; and learning. While these are listed as reasons organisations may wish to enter into collaborations, they can equally be used to assess the success of the collaboration.

In terms of parenting, this list hints at some of the advantages that could be gained from being in a collaborative relationship. Both partners are likely to bring different resources to the relationship, be they financial, knowledge or skill-based, or access to support networks. Parental activities can be coordinated, and hence provided more efficiently, providing time for non-parenting activities, and possibly improving the quality of parenting time. Parents can also learn from each other. The main proposition, however, is that there is an advantage to being in a collaborative relationship.

One of the reasons for inter-organisational collaboration is to address problems that are too complex to be dealt with by a single organisation (Trist, 1983), or when the risk is large (Das and Teng, 2001). Translating these to the family situation, one could suggest that there is more of a need to collaborate when the family has significant problems. One could therefore hypothesise that in situations where the family suffers multiple disadvantage, for example, due to a lack of financial resources and poor education, there is more to be gained from collaboration than in less risky situations. A similar point was made in section 3.2.1, that when both partners are less well informed of parenting matters, as may be expected in situations of multiple disadvantage, which can lead to social exclusion, more can be gained from collaboration than if one parent is very well informed.

Stages of the collaborative process

The process of collaboration is described by Wang and Xiang (2007) as dynamic and cyclical, consisting of five stages: assembling, ordering, implementation, evaluation and transformation. The assembling stage takes place prior to the formation of any alliance, and therefore is of less relevance to couple collaboration. During this stage, consensus about the nature of issues and goals is reached, and partners are selected, based on the recognition of interdependence and mutual trust. At the ordering stage, ideas are elaborated and attempts are made to achieve a shared vision. Information is shared, rules are agreed and goals are set. At the implementation stage, plans are put into action. Costs and benefits are re-assessed, and roles and responsibilities are made clear. Communication is critical to ensure that implementation runs smoothly. The evaluation stage involves checks against objectives, and the review and revision of plans, drawing lessons from what has been achieved so far. Finally, at the transformation stage, which would commonly be initiated by a particular event, such as the achievement of the goals for which the alliance was initially formed, the future direction of the alliance would be decided. There is no expectation that the stages will always occur in the same order, nor would they necessarily be discrete. A certain amount of overlapping and feedback to earlier stages is quite likely. This model has obvious parallels with Tuckman's (1965) model of the stages of small group development: forming, storming, norming and performing, and the later added stage of adjourning (Tuckman and Jensen, 1977).

In considering whether it is appropriate to apply this model to collaboration between co-resident parents, there are three issues that make family situations quite distinct from other collaborations. Firstly, at the point of becoming parents, an alliance is commonly already in place. However, when the partners entered into the relationship, the goals of that relationship may have been quite different from those which emerged when they became parents. Secondly, because of this existing alliance, the choice of parenting partners is limited. Most of the literature on collaboration assumes there are a number of potential partners with which one could form an alliance for a particular project. When considering co-resident adults at the point of becoming parents, the choice is not normally about with whom, but about the extent to which one is prepared to collaborate. Finally, in most cases, couples do

not plan to raise a child with the expectation that they will terminate their relationship when this has been completed.

With these considerations in mind, the model becomes one of cyclical re-negotiations. The assembling stage is not a beginning, but could be considered one of re-formation. Every so often, as significant events occur, such as births, deaths, major illness or infidelity, the foundations of a relationship, the mutual understandings and objectives, will be called into question. While there is no re-selection of partner (unless the relationship has ended), major issues, including those of interdependence and trust, may be aired.

As emotions temper, this re-formation stage gives way to the ordering stage, where rules and shared aims are re-negotiated. Only after this re-negotiation stage can one return to the "normal" day-to-day activities of a family. At the implementation, or performance, stage, each partner takes on agreed roles and responsibilities, while continuing to assess, communicate and negotiate issues informally. In the evaluation stage, progress is reviewed between the partners, and plans are re-drawn. The formality of this stage may depend on what has preceded. The fifth stage, of transformation, is the same as the first.

The sequence and duration of these stages will be different for different families. Some couples will stay in the performance stage for a very long time, never reaching a crisis. Others will need to re-form many times.

3.2.3 Family systems theory

Family systems theory has had a major influence on family research, moving from the previously accepted norm of making generalizations about the family from interviews with a single member, usually the mother, to research in which family dynamics and communication are central (Galvin, Dickson and Marrow, 2006). Systems theory originated from within the sciences, building particularly on

biological science and on communication and information science. It is often criticised for trying to provide a unified theory covering too many unrelated areas (White and Klein, 2008). However, it has given rise to a number of more specific theories, including stress theory, and is often used as a framework in combination with other theories, such as life course and ecological theories (Day, 2010).

Research into coparenting draws mainly on family systems theory. Within this framework, the family can be viewed as a number of interdependent subsystems, none of which can be fully understood without reference to the family as a whole (Minuchin, 1974). The coparenting subsystem is viewed as the "executive" subsystem, which sets standards for the relationships and interactions within the household. Modelling the family in this way has certain advantages over some of the other theories discussed, as it allows one to consider inputs and outputs of the system, rather than starting at the level of the individual.

Families tend to be modelled as "open" systems, with permeable boundaries, and exchanges of energy and information with the environment, rather than "closed" systems, such as an engine, where all the parts are fixed in their relationship to each other, and the output is predictable (Hecker, Mims and Boughner, 2003). In reality, the extent of this openness varies between families, which gives rise to an interesting question about how the system is affected by the level of openness, represented by the amount of support available to a family.

Systems theory builds on four assumptions: all parts of the system are connected to each other; the system can only be understood as a whole; the system affects itself by affecting and being affected by its environment; and the system is not real, only a useful device for understanding experiences. This last assumption is often ignored in the family systems literature, with the family being treated as a system, rather than trying to model the family (White and Klein, 2008).

The interconnectedness of a system means that the behaviour of one person becomes the other's information. For example, if a mother allows her child to watch television

after dinner, the father will take on board that information. The father may interpret that information and allow the child to watch television after dinner the following day. This then becomes information to the mother. Of course, the real meanings behind each parents' behaviour, for example that the mother was too busy and wanted the child out of her way, may be missed unless appropriate communications are used. Such feedback loops can be both internal and external to the system, in which case the interactions would be between the family system and the environment. My analysis will be concentrating on the mother-father subsystem, in which case the children, as well as their school, and the immediate neighbourhood, are all modelled as part of the environment.

This process of feedback, where outputs from the system become inputs, means that causes can never be seen as linear. Whatever the initial stressor, causality arguments become circular. For example, the death of his own father may have caused a man to turn to drink. This may have led to his wife making efforts to make him stop, which was interpreted as nagging, which made the man want to continue drinking. Thus, the initial cause has been lost, and there is now a feedback loop attached to the system that allows for the continuance of the behaviours (Bateson, 2000). Indeed, from a therapeutic perspective, searching for an initial cause and apportioning blame is considered counterproductive (Galvin, Dickson and Marrow, 2006).

This circular causality is often criticised, by feminist writers in particular, for failing to address issues of unequal power. In situations of domestic violence, systems theory would not put the blame on the perpetrator, but on the process by which both partners create the situation (MacKinnon and Miller, 1987; McConaghy and Cottone, 1998).

There are a number of important concepts in systems theory, which can be applied to the process of collaboration. First, we have the *system* itself, which consists of a model for the family and the relationships within it. I will be concentrating on the smaller *subsystem*, which models only the mother and father, and the relationship between the two. This subsystem has a *boundary*, which separates it from, but allows

exchanges with, its environment (Minuchin and Fishman, 1981). The system is governed by a set of *rules of transformation*, which provide structure to the system, and convert inputs to outputs (Giddens, 1984). For example, if the child gets a poor report from school (input), the parents agree to talk to the teacher about what can be done (output). In the family situation, these rules may not have been tested, and may be more extensive and much less predictable (or even unknowable) than in the sciences on which systems theory was originally developed. Outputs from the system become inputs, through a process of *feedback*. The *variety* of a system is the extent to which it can adapt to a changing environment, through the utilisation of its resources. This has parallels with the concept of resilience (see next section). Wilkinson (1977, cited in White and Klein, 2008) suggested that the viability of a system is dependent on the amount of variety within the system, and negatively related to conflict within the system. The family tends to be viewed as a *higher order system*. First order systems simply apply the rules which transform inputs to outputs. Higher order systems add in a level of *control*, which allows checks to be made between outputs and goals (Broderick, 1993; McClelland, 1994). This means that lower order rules can be amended to ensure goals are achieved, rather than sticking rigidly to rules. Thus, if a goal is for the child to get to sleep, a lower order rule of lights out at 8 o'clock can be waived if this is causing distress to the child.

Family systems theory is often associated with family therapy, where solutions are found for the family, rather than the individual (Day, 2009). Solving an individual's problems is achieved through the engagement of the whole family. Olson, Sprenkle and Russell (1979), from this perspective, developed the "circumplex model", categorizing families according to their degree of cohesion and their degree of adaptability. While the concept of cohesion represents the type of emotional bonding and dependence that might be expected in a collaborative relationship, they make it clear that too much enmeshment is problematic, and the ideal situation allows more of a balance between cohesion and individual autonomy. Similarly, the ideal situation allows for some degree of structure and flexibility in the family, without being either too rigid or too chaotic.

Family systems theory provides a useful framework for the study of collaboration, although the circularity of causality cannot be easily modelled through traditional statistical techniques.

3.2.4 Family resilience

In section 3.2.2, I introduced the idea that collaborative advantage may be greater when the family is at risk. The concept of resilience allows some expansion on this. As a framework, though, it only applies when the family is at risk, so for the large part of this study, it is not relevant. The ideas encapsulated in the study of resilience are similar to those of family stress and coping theory (Hill, 1971; McCubbin and Patterson, 1983). The former is used in this thesis, rather than the latter, because it is easier to define concepts. In stress theory, stressors can only be defined as such by the family, whereas risk factors in the study of resilience can be defined by the researcher.

The concept of resilience originates with studies of children who develop competently, despite exposure to "significant risks", such as poverty or mothers suffering from mental illness (e.g. Rutter, 1987; Garmezy, 1991). While the concept is most commonly applied to individuals, it can equally be applied to families (Patterson, 2002). To do so, it is necessary to be able to assess a family level outcome for success, in a situation where they might be expected to fail given their circumstances, and to understand the reasons for their success.

Family and individual resilience are often confused. To talk about "family resilience", the focus must be on the ability of the family unit to cope, rather than on individual members of the unit. One of the outcomes I shall be looking at is that of a child's social and behavioural development (see chapter 8). While this may appear to be an individual level outcome, I shall be treating it as a family outcome. Thus, I am not looking at how a child may develop competently, but I am looking at how

parents may raise a socially well-developed child. This is a critical distinction, which determines the variables I would consider in building a statistical model.

The study of resilience talks about "risk factors" and "protective factors". Risk factors could include things like poor parenting skills, and low income. Collaboration between parents will be tested in its role as a protective factor. The statistical methods used, as described in the next chapter, do not distinguish between risk factors and protective factors. The absence, or low levels of a risk factor is effectively a protective factor. The language of resilience only really makes sense when the family is considered "at risk". This will be discussed in relation to collaborative parenting in chapter 8.

3.2.5 Ecological theory

The crux of any ecological theory is the relationship between the object of study and its environment. Hawley (1986) describes the environment as including "all that is external to and potentially or actually influential on an object of investigation" (p10-11). Such a definition implies that the environment is specific to the object of study, and must therefore be redefined for each object.

In applying ecological theory to families, Bronfenbrenner (1979) suggested that "whether parents can perform effectively in their child-rearing role within the family depends on role demands, stresses, and supports emanating from other settings" (p7). Thus, the flexibility of a parent's work, the childcare that is available, and the network of friends and neighbours that can be called upon, all influence the ability of parents to raise their children. Unlike earlier family and child development theorists, such as Piaget, on whose work he drew, Bronfenbrenner emphasised the importance of context. He proposed that the family could be viewed as one of many nested ecosystems, arrangements of mutual dependencies operating as a unit. Bronfenbrenner describes four types of ecosystem. The family is a *microsystem* for

the individual members of that family, in which there are direct interactions with other members. The individual both affects and is affected by this immediate environment, thus helping to construct the family. A child's school is another microsystem, which will shape and be shaped by the individual child. When microsystems interact, as is likely to be the case for school and family, this is described as a *mesosystem*. A child's relationship with her teachers is likely to be influenced by her relationship to her parents. Systems with which one has no direct interactions, but still have indirect effects, such as a parent's work, are described as *exosystems*. Finally, the *macrosystem* is the larger culture within which the other systems exist.

Ecological theory is in effect an extension of systems theory. Rather than considering support in terms of the permeability of the boundary between the family and its environment, support under ecological theory would be considered in terms of the mesosystem formed by the interaction of the family microsystem and the support provider's microsystem.

When an ecological framework is applied, it is common to consider multi-level models. Bronfenbrenner (1979) criticises studies where environmental factors are considered simply as a characteristic of the person or family. However, data considerations often make it difficult to do otherwise. In chapters 6, 7 and 8, for example, a socioeconomic measure of employment relations for both the mother and father will be utilised as a proxy for their working environments. While there may be good reasons for utilising an ecological framework for the study of couple collaboration, it cannot be applied in full. The main element to be drawn from ecological theory is the attention to factors outside the household.

3.2.6 Rational choice and social exchange theory

Theories that treat the family or the parental dyad as the unit of analysis can provide an understanding as to how inputs to the family system can be translated to outputs, and how the system itself may be transformed by the process. However, they do not fully explain why the individual components of the system, that is, the individual parents, choose to collaborate. To understand this, we would have to consider another set of theories which deal with power and individual agency.

Exchange theorists, such as Nye (1978), argue that families exist because they benefit the individual. Benefits may not be as obviously measurable as they are in economic theories of the family (e.g. Becker, 1991), but exchange theory still relies on an individual's ability to act as if she had rationally weighed up the costs and benefits to herself of her actions. One could extend this to argue that relationships are collaborative (or not) because that arrangement benefits the individual. There have been many psychological studies, which demonstrate that individuals frequently do not act in such a way, which have led to adaptations to these theories of decision making (see Kahneman, 2012), but the consideration of a rational agent remains a useful starting point for examining interactions between family members.

The idea of rationality implies that different individuals, given the same circumstances and the same values, offered the same choice, would make the same decision. Diversity in decisions arise because we do not all share the same circumstances and the same values. For one mother it may be perfectly rational to pay for childcare five days a week, to enable her to work, whereas for another such a decision would be irrational. The same sort of factors will affect an individual's decision regarding the way in which they collaborate with their partner.

Family members do not always act rationally in economic terms, but their actions can still be understood by examining the decision making-process. Decisions are sometimes made for emotional reasons, which may benefit another family member at the expense of the decision maker, or may be costly to all involved.

Misunderstandings and miscommunication may also occur, which mean that apparently rational decisions prove to be poor ones, because they are based on poor information. Rational choice and exchange theorists argue that altruistic behaviour within the family can be explained in terms of long-term benefits, but the same cannot be said for more negative emotional actions (White and Klein, 2008).

The idea of individuals weighing up their own personal benefits and costs appears to contradict a premise of collaborative behaviour, that decisions are made jointly. However, acting in a collaborative manner by discussing a decision, or taking responsibility based on knowledge of one's partner's values and circumstances could be seen as part of the cost-benefit analysis. The question arises as to whether it is more rational to act collaboratively. If so, it follows that couples who act collaboratively may also be more likely to make rational decisions in general. In section 3.2.1, it was suggested that couples who act collaboratively are likely to make better-informed decisions. Here, the argument is that couples who make better-informed decisions are more likely to be collaborative. While the association between collaboration and use of information will be considered in chapter 7, no attempt will be made to determine the direction of causality.

3.2.7 Theories of conflict and power

Conflict could, to some extent, be seen as the opposite of collaboration. Conflict theory suggests that disharmony, and hence non-collaboration, is inevitable within groups. Engels (cited in White and Klein, 2008, p182) saw conflict within the family as a microcosm of the class conflict within society as a whole. He described the "first class opposition", which grew from the gendered division of labour, as being coincident with the development of antagonism within marriage, and the "first class oppression" as being that of women by men. Structural inequalities in society may not be the same as when Engels was writing, but, in terms of gender, they clearly still frame the study of couple relationships. However, the extent of this framing is not an

issue I have attempted to take on in this thesis. The brief discussion that follows concentrates mainly on conflict and power within the relationship, only looking at the external influences which may have shaped them in terms of gendered employment patterns and role expectations.

While exchange theory is based upon negotiation, leading to satisfactory outcomes for all actors, conflict theory suggests that fair outcomes are more likely to be achieved when disruptive action is taken by those with fewer resources. From an inter-organisational perspective, Mintzberg et al. (1996) suggest that one of the main reasons for the failure of collaborations is an inequality of power, which could be due to an inequality in resources. Others, such as Sprey (1979), see conflict as inevitable even when resources are abundant, as tensions between a desire for autonomy and a need for family unity are worked out. Conflict can easily arise from differences in goals, methods, beliefs or values, and has to be managed, to avoid escalation that may lead to the family breaking up. It has been argued that where individuals invest a lot into a relationship, conflict is more likely to occur (Sillars, Canary and Tafoya, 2004).

While conflict theory may be better placed to explain non-collaborative behaviour than collaborative behaviour, conflict in itself is not anathema to the concept of collaboration. How conflict is dealt with is an indication of whether the collaborative process is being followed. Conflict between partners differs from conflict within larger groups, as the conflict is always with the same adversary. Therefore negotiation to deal with the causes of the conflict becomes more important. Positive communication strategies, such as validation of feelings, and support for one another, are more likely to be met with positive communication (Newton and Burgoon, 1990).

The definition of collaboration provided earlier implies the need for equality within a relationship. However, there are power inequalities within society that affect most families. Women are more likely to be part-time workers, be paid less than their male counterparts, are more likely to take on employment in the helping professions that reflects their “mothering” skills, and are more likely to be recipients of welfare

spending (Fraser, 1989). Writers such as Fraser argue that capitalism supports such power differentials, promoting the nuclear family, with the father as the main earner, and the mother the main consumer, as being good for the economy.

Research into coparenting, with its grounding in systems theory, tends to overlook the issue of gender as an external influence on the family. Simply the use of the terms "mother", "father", "daughter", and "son", carry with them expectations of roles, which families would find it very difficult to ignore. Gender expectations regarding domestic responsibilities affect families, and such responsibilities reinforce gender differences in the work place. Even if domestic work is split in a more egalitarian way, questions of power, and who decides how work is divided have to be asked (Morgan, 1996).

Sex role theory suggests that "role strain" can occur when parents feel uncomfortable in a role, or unsure of how to fulfil it. This may be common for new parents. Further difficulties can occur when the roles an individual takes on, such as provider of care, and provider of income, clash. The result of this can be shortages of time, and physical or mental fatigue. In two parent households, complementary roles (e.g. one earner and one carer) may be encouraged to avoid this (Le Poire, 2006). Such a position, though, fails to consider the power dynamics and material inequalities that may have led to such inter-role conflict (Connell, 1996). Gender role attitudes are not fixed over time. For many women, significant events do change their perspective, but becoming a mother is not in itself the driver of such change, as much as the change in economic activity which accompanies it (Berrington et al., 2008).

It could be argued that women can collaborate with their partners in order to gain a more equal status within their relationship. On the other hand, it could be argued that by collaborating with their male partners, women are falling into their expected role. There is a certain degree of flexibility within the definition of collaboration, in an attempt to avoid the trap of those promoting equally shared parenting, which, in order to overcome constraints enforced by gender inequalities, imposes another set of constraints on couples. Collaborative parents negotiate their roles. Women can retain

their traditional roles of motherhood. At the same time, they can engage in employment without the expectation of undertaking a "second shift" of housework and childcare responsibilities when they return home (Hochschild and Machung, 1989).

The ability to negotiate requires power, and not everyone has power within a relationship. While I have proposed collaborative parenting as a form of parenting that enables choice and equality between partners, it is clear that pre-existing inequalities in power are likely to affect a couple's ability to collaborate.

3.3 Building research questions

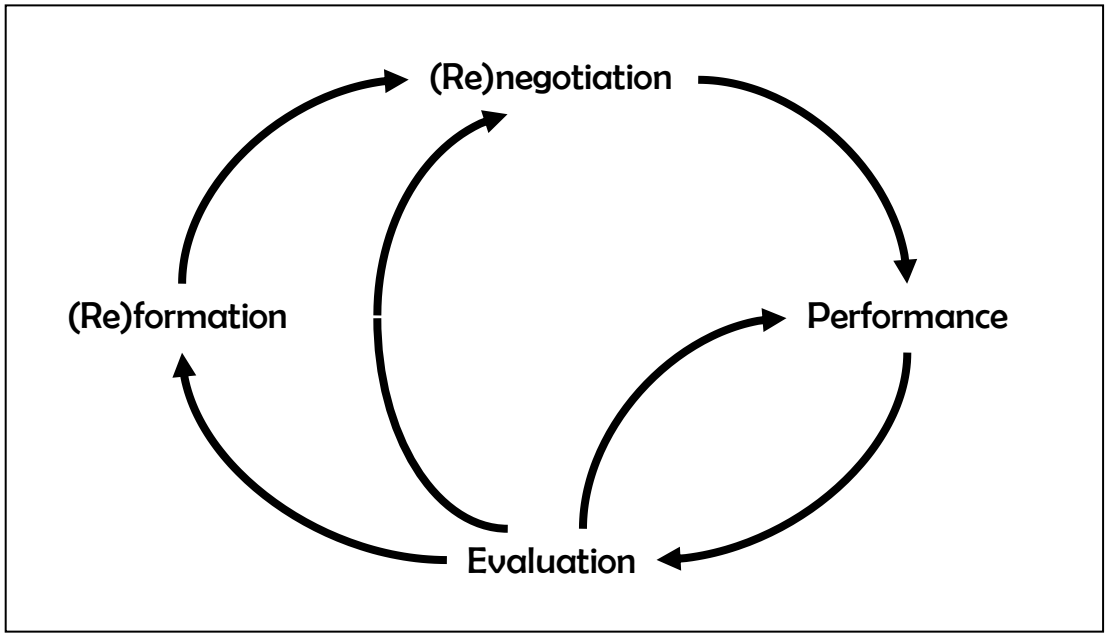
In chapter 1, the aims of this thesis were set out. These were to examine the associations between collaboration and the concepts of social support from outside the immediate family; time available for leisure and family activities; the impact of work on family life and family life on work; adherence to "expert" advice on parenting matters; and a child's social, emotional and behavioural development.

Within this section, I shall use the theories and concepts discussed to build some testable questions based on these aims.

3.3.1 Support and the collaborative process

Understanding the collaborative process draws mainly on collaboration theory (section 3.2.2). Adapting Wang and Xiang's (2007) model for collaboration, one can construct a cyclical model of the collaborative process (Figure 3.1).

Figure 3.1 Collaborative process: the collaborative relationship

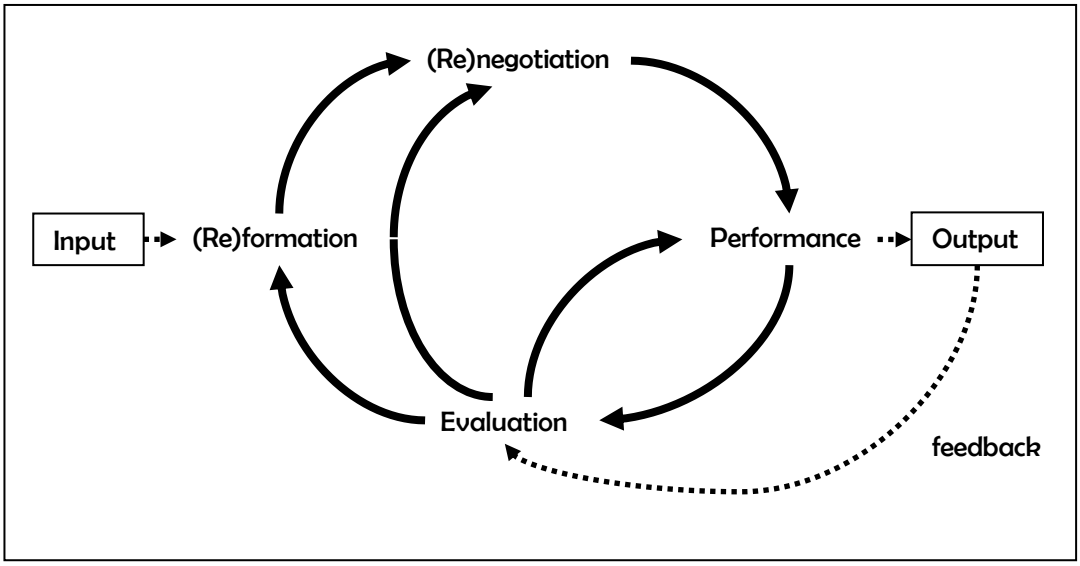


The diagram above shows the process of how the collaborative element of a relationship may adapt over time. At the (re)negotiation stage, information, ideas and visions are shared and moulded into a common understanding. Rules are agreed, and goals are set. At the performance stage, plans are put into action, with each partner taking on agreed roles and responsibilities. Clear communication enables partners to trust each other and feel they have the knowledge to assess the situation. At the evaluation stage, checks can be made against objectives, and the effectiveness of the way in which partners have worked together, and the roles they have taken on can be assessed. This may lead to continued performance, a renegotiation of roles and responsibilities, or a reformation of the structure of the relationship, when for example, it may be agreed that one partner gives up work, or additional help is bought in to deal with childcare issues.

At another level, one can consider the flow of information. As information does not arrive all at once, it cannot be expected that a relationship is at the same stage in regard to all issues at the same time. For example, one goal of a collaborative relationship may be to help a child learn to read. Roles and responsibilities may have been agreed, with the father assisting the child with reading material brought home

from school, while the mother reads a bedtime story each evening. Thus the relationship has entered the performance stage. At the same time, the mother receives a phone call from the school saying the child has been fighting. This is new information to the couple, so the process for dealing with this information is only at the formation stage. By adapting the process diagram, we can show, in theory, how this information is dealt with.

Figure 3.2 Collaborative process: the flow of information



New information enters the process at the (re)formation stage. The couple then negotiate how this information is to be dealt with, and put their plan into action. At the performance stage, one can expect to see some sort of interaction with the environment (the source of information). In the example provided, the parents may agree to sit down with the child together and talk about why she has been fighting. The parents can now expect feedback from the environment, both the child and the school, as to the effectiveness of their intervention. Because this feedback is expected, it enters the cycle at the evaluation stage, rather than as new information at the formation stage. Depending on the evaluation of this feedback, the process may continue to the reformation stage (for example, if the fighting were getting more serious), the renegotiation stage (for example, if the fighting were continuing), the

performance stage (if the strategy were thought to be working), or the process may have been deemed a success, and come to a natural end.

The two levels shown here allow for a certain amount of efficiency within the lower (second) level. Because of already agreed rules, roles, goals and shared understandings at the higher level, it may be possible to pass very quickly through the formation and negotiation stages into the performance one at the lower level. Indeed, the division of roles at the higher level may negate the requirement for both partners to be involved at the lower level. However, in order to remain at the performance stage at the higher level, appropriate communication of lower level processes would be required. Higher level rules may also allow the over-riding of lower level rules, as would be suggested by systems theory (section 3.2.2). Thus the higher level process allows the couple to prioritise lower level processes, and evaluate them as part of a bigger picture.

Support, as discussed in the previous chapter, takes many forms. For the purposes of building a testable research question regarding support and the collaborative process, I am mainly concerned with significant levels of practical support, such as looking after children. Under systems theory and ecological theory, high levels of support could be equated to the family having a more permeable boundary and more interactions with the support providers. The structure of this mesosystem of family and support providers is more complex than for low levels of support, with fewer interactions.

One could hypothesise that high levels of support could take the collaborative relationship in more than one direction. The organisation of the more complex mesosystem may require a more controlling executive subsystem, and so the parents may collaborate more efficiently. On the other hand, the relationship between the parents may be partly superseded by one or more of the support relationships. In this case, the parents may collaborate less, as needs are being met elsewhere. Considering support networks as resources for each of the partners, this hypothesis would agree with theories that highlight inequalities in resources as giving rise to conflict (e.g.

Mintzberg et al., 1996). Indeed, there may actually be less benefit in partners collaborating when sufficient support is available from outside the family than when it is not. Taking neither side, a suitable research question would be:

RQ1: ***How does informal social support from outside the immediate family affect the process of collaboration between two parents?***

This will be examined in chapter 5, using qualitative data to identify the process of collaboration in couples with differing degrees of support.

3.3.2 Collaboration and the balance between work, family and leisure

As discussed in section 3.2.2, collaboration theory suggests that there are advantages to organisations in acting collaboratively, and I hypothesised that this could equally apply to couples. One particular advantage regards the coordination and efficiency of daily activities. This implies that collaborative couples would have more time available for other activities. Therefore each parent may have more time to spend on individual leisure activities, and the family may have more time to spend together on whole family activities. Of course, how leisure is defined is often very subjective. Reading, watching television, and having time away from the family may all indicate greater time available for leisure, but not reading for pleasure or not watching much television are poor indicators of limited leisure time, and may well demonstrate more of an association with levels of education.

From a rational choice perspective (section 3.2.6), individuals may try to maximise their own leisure time. However, couples who act collaboratively, by taking each other into consideration when conducting a cost-benefit analysis, are more likely to reach a balance in the time available to each partner. Therefore the time available to each partner is more likely to be equal, and both partners are more likely to be

satisfied with the time they have. In this way, collaboration could partly address an equalities agenda (section 3.2.7).

In sections 3.2.6 and 3.2.7, I suggested that collaborative partners may be more likely to make rational decisions and to resolve conflicts. Therefore, when potential conflicts arise, such as between work and family, these are more likely to be dealt with by collaborative couples, and hence the perceived impact of work on family life and vice-versa may be reduced.

Drawing these ideas together, two questions emerge concerning the relationship between collaboration and the balance of work, family and leisure. One concerns the total amount of family and leisure time available to each partner. The other concerns perceptions of the impact of work on family and family on work.

RQ2: ***Is collaboration between parents associated with increases in time available for leisure and for family activities?***
RQ2a: ***Is collaboration between parents associated with a decrease in the perceived impact of work on family life and vice-versa?***

Of course, there are other very obvious impacts on time available, such as employment and social support. These will be taken into account when considering these questions, using quantitative data, in chapter 6.

3.3.3 The use of information and advice by collaborative parents

Unsolicited advice is regularly offered to parents in the way of media campaigns on healthy eating, and newspaper stories on potential issues with vaccines. At the same time, parents seek information and advice on health problems, nurseries, and normal child behaviour from friends, family, other parents and professionals. Whatever the

information, collaborative couples are more likely to discuss it, and in doing so, give it greater attention.

In section 3.3.1, it was said that information could be processed more efficiently by collaborative couples. When two parents have different information, and perhaps different viewpoints, the parent who can use their information to argue their point better is likely to have a greater influence on the final decision made by the couple. In section 3.2.1, it was argued that the winning argument is likely to be the better one, although in many cases it may reflect the power within the relationship with respect to the subject of the discussion. Given that I have suggested that collaborative couples are less likely to have inequalities in power (section 3.2.7), collaborative couples are more likely to come to better decisions based on the information available. "Better" decisions regarding issues like health care are more likely to follow expert advice. This mirrors arguments used in the field of education that students learn better when they work collaboratively. By discussing issues with each other, they engage with the learning materials better, and jointly come to better solutions (Dillenbourg, 1999).

In terms of parenting, "better decisions" may be equated to "better practice", or what is considered better practice by experts in the field. So, for example, collaborative parents may be less likely to smack their children. From this, a third research question becomes:

RQ3: ***Do collaborative parents adhere to "expert" advice on parenting matters more than non-collaborative parents?***

Again, in examining this question in chapter 7, it is important to take other factors into account, such as level of education, which may affect one's willingness to engage with professional advice.

3.3.4 Collaborative advantage in a child's social, emotional and behavioural development

Using the language of collaboration theory, perhaps the most important demonstration of "collaborative advantage" is in terms of outcomes for the child. For methodological reasons, I shall consider this only in terms of a child's social, emotional and behavioural development, and no attempts will be made to demonstrate a causal link between collaboration and child outcomes.

As raising a child is the main purpose of parenting, collaboration theory, as well as the mathematical model presented in section 3.2.1, suggests that there should be an advantage in doing this collaboratively. The theory also suggests that this advantage will be greatest when the family is at risk. In this situation, the concept of resilience becomes important, and collaboration can be viewed as one of the protective factors which help the parents to raise a well-adjusted child, despite the presence of a number of risk factors which might commonly be associated with poor child outcomes. Definitions of being "at risk" will be examined in chapter 8, but I wish to include more than that used by the UK government in terms of being at risk of social exclusion, and examine situations such as when couples are at risk of being short of time to spend together as a family, as both parents work full-time.

Collaboration theory does not imply that there are advantages only when the family is at risk. Better outcomes would be expected for the children of collaborative parents, even when no risk factors are present. Systems theory and ecological theory both emphasise the importance of looking at the relationships in context. It is therefore important to include family factors and environmental factors in any model of the relationship between collaboration and child outcomes. Two research questions will be examined in chapter 8:

RQ4: ***Is collaboration between parents associated with more favourable reports of a child's social, emotional and behavioural development?***

RQ4a: ***Is such association stronger when the family is exposed to multiple risk factors?***

3.4 Summary

During the course of this chapter, a number of key concepts have emerged from the various different theories that have been considered. The concept of *collaboration*, as applied to couples, is similar to that of *coparenting*, which has its roots in systems theory. I have suggested that collaboration is a process by which parents work together for the benefit of their children. It involves a common understanding of the children and their needs, shared goals, involvement with the children from both partners, and support for each other. Inter-organisational collaboration theory also provides the concept of *collaborative advantage*: the idea that there is a benefit from being in a *collaborative relationship*; and an indication of the process by which collaboration may occur. It should be emphasised, though, that the methods discussed in the following chapter do not enable me to demonstrate advantages of collaboration, but simply associations between collaboration and a range of factors.

To get a deeper understanding of these concepts, I considered a number of theories of the family. Systems theory is a useful framework for the construction of models of collaborative behaviour within the family. Modelling the couple as an open system with permeable boundaries to the larger environment, and particularly the children, allows one to build a testable model for the demonstration of associations between collaboration and a range of factors. Systems theory, ecological theory, and concepts of resilience all emphasise the importance of context, and the identification of family and environmental factors that may increase the *risk* of difficulties for the family, or protect the family against such risk, or improve chances even when the family is not at risk. A collaborative relationship can be viewed as one of these *protective factors*.

The model for the process by which collaboration occurs also draws upon systems theory and inter-organisational collaboration theory. The process is seen as cyclical, going through four stages, of (re)formation, re(negotiation), performance and evaluation. It can also be viewed on two levels, with rules and roles set at the *higher level* (the relationship) taking precedence over, and allowing for a more efficient organisation of the *lower level* (the management of information and issues). Exchanges with the environment provide information which follow the same four stages and provide outputs to the environment. This output affects the environment, the result of which provides a *feedback* loop to the family system.

The idea of risk provides one notion of why *departures from the collaborative process* may occur. Stressors, be they ongoing, such as poverty, or a single event, such as a death in the family force the family to deal with the stressor or adapt. Rational choice theory, conflict theory and feminist theories offer alternative explanations. In the first, the departure from the collaborative process would be a rational choice by one partner, as it is believed to be in their own best interests, although may actually be based on poor information or misunderstanding. In conflict theory, the departure is due to the natural conflict within a relationship, which arises due to an inequality of resources and power, inequalities that are also highlighted in feminist theories. It is not the intention of this thesis to look at the wider structures of society which may influence power within relationships, but it is important to acknowledge their existence.

These theories give rise to six research questions, which will be examined in chapters 5 to 8. These are:

RQ1: *How does informal social support from outside the immediate family affect the process of collaboration between two parents?*

RQ2: *Is collaboration between parents associated with increases in time available for leisure and for family activities?*

RQ2a: *Is collaboration between parents associated with a decrease in the perceived impact of work on family life and vice-versa?*

RQ3: *Do collaborative parents adhere to "expert" advice on parenting matters more than non-collaborative parents?*

RQ4: *Is collaboration between parents associated with more favourable reports of a child's social, emotional and behavioural development?*
RQ4a: *Is such association stronger when the family is exposed to multiple risk factors?*

Chapter 4 – Methodology

"There are three methods to gaining wisdom. The first is reflection, which is the highest. The second is limitation, which is the easiest. The third is experience, which is the bitterest."

Confucius

In this chapter, I aim to justify the choice of methods used for the exploration of the research questions set out in the previous one, and to make explicit the details of the data collection and analysis.

The general approach can be described as one of mixed methods, with the emphasis on the quantitative analysis of government survey data, supplemented by the conduct and analysis of semi-structured interviews. Considerable emphasis is placed on the construction of a quantitative variable to identify couples who act collaboratively. The follow-up interviews are used to illustrate what is meant by collaboration, as well as to respond to research questions which could not be answered by the quantitative methods alone.

4.1 Choice of methods

The choice of methods for any course of research would normally be dictated by the research questions (Blaikie, 2000; De Vaus, 2001). To some extent, this was inverted, by the specifications of those funding this project, who requested the use of the Growing Up in Scotland study (see section 4.2). While analysis of this requires a quantitative approach, sufficient leeway was provided to develop the mixed approach which best suited the research to be carried out.

A mixed methods approach can be justified on a number of counts. Greene, Caracelli and Graham (1989) propose five possible reasons for combining methods, and all of them could be used for this project to different extents. *Triangulation* could be claimed, though not so much in providing validity for findings, as for the operationalization of concepts. *Complementarity* of the methods allows the qualitative data to elaborate on and illustrate the findings from the quantitative methods. The quantitative data are used for the *development* of the qualitative, in that the former are used as a sampling frame for the latter. The qualitative data are intended to throw up ideas, a process of *initiation*, which can further be considered through quantitative analysis. *Expansion* also occurs, as the breadth of this thesis is increased by using the different methods to look at questions the other would not be able to answer. Bryman (2006) provides a longer list of reasons, from which I would additionally cite the use of qualitative data to gain an understanding of *process*. This last reason allows one to look inside the "black box" of the household, which can easily be left unopened when using only quantitative methods (Morgan, 1996).

Although I describe the approach as one of mixed methods, the quantitative analysis shall remain dominant. The semi-structured interviews, which will be discussed in section 4.3, were conducted part way through the quantitative analysis, approximately two years after the final sweep of data from the Growing Up in Scotland study was collected. Cresswell et al. (2006) highlight concerns raised about mixed methods research, that it often treats the qualitative component as of lesser importance, failing to employ critical analysis. Although the findings chapters make

most use of the quantitative data, the qualitative part of this study is vital in providing a proper understanding of the quantitative analysis.

Where a lot of mixed methods research falls down, is in a failure to integrate findings (Bryman, 2007). I have chosen to use different methods to answer different research questions. This means that chapter 5, which looks at the process of collaboration, and its links to social support, does so using qualitative data. That chapter, however, is integrated into the rest of the thesis, as it is also demonstrates what is to be understood by the term "collaboration" as it is used in the quantitative analysis in subsequent chapters. The link between the quantitative and qualitative operationalisations of collaborative parenting is essential to the understanding of the later findings. In later chapters, which use primarily quantitative data, qualitative findings are pulled in, mainly for illustrative purposes.

The decision to use mixed methods was taken from a pragmatic perspective (Brannen, 2005; Johnson and Onwuegbuzie, 2004). Limitations of the survey data, which will be discussed in section 4.2, gave rise to the need to collect extra information, and the most practical way of doing this was through semi-structured interviews. Together, the two methods allow the research questions to be considered in greater depth, with the main drawback simply being the time taken to learn about and use both approaches. Bryman (2007) discusses a number of barriers researchers may come across to the use of multiple methods. These are mostly practical, such as publication timetables, or an affiliation to a particular method. The one that needs further comment regards the epistemological divide between the methods.

There are those who have argued that quantitative and qualitative methods of research are incompatible with each other (see Tashakkori and Teddlie, 1998). Purists from the quantitative side of the debate tend to follow a positivist philosophy, attempting to minimise bias in their research by keeping themselves at a distance, treating social observations in the same way as a physical scientist would treat measurements of the universe, and aiming to make generalisations free from the specifics of time and place. Those from the qualitative side, often following a

constructivist or idealist philosophy, recognise the existence of many different constructed realities, such that context-free generalisations are not possible. Their research is bound by the values and knowledge of the researcher, with general hypotheses flowing from the specific situations (Johnson and Onwuegbuzie, 2004).

The different epistemological positions make combining quantitative and qualitative methods difficult (Blaikie, 1991). However, when one looks more closely at the Growing Up in Scotland study, it becomes evident that a positivist approach raises problems. While some of the data can be treated as facts (e.g. the number of children in the household, the age of the mother, or the location of the home), other data are more open to interpretation. Many questions ask for the respondents' opinions (e.g. on how comfortably off they are on the household income, on how important cultural activities are for their child, or whether they could leave the child with someone else in an emergency). Not only do the data reflect the respondents' interpretations of the question, but in the analysis it is necessary to introduce further interpretation, for example, in determining the extent to which responses of "strongly agree" with a particular statement can be understood as distinct from ones of "agree", and to understand the concepts being measured over a series of questions. Even questions which may appear to offer factual responses need interpretation when recoding variables, for example, in deciding whether it is the formal / informal nature of childcare that is of relevance, or whether it is the individual or group setting. I would therefore argue that I, as the analyst, cannot distance myself from the data, and I am actually approaching it from an interpretivist perspective.

The understanding gained from my interpretations of the quantitative data may actually reflect my personal biases, so supplementing this with qualitative data to elucidate the findings becomes a sensible proposition. As both methods address the research questions from an interpretivist perspective, they complement each other well.

4.2 Growing Up in Scotland

4.2.1 GUS data collection

Growing Up in Scotland is a longitudinal study, which aims to track the lives of children throughout their childhood. It is funded by the Scottish Government, with the primary aim of providing information to aid the process of policy making. The data collection has been carried out by the Scottish Centre for Social Research (ScotCen).

The study initially followed two cohorts of young children and their families. The older cohort of children were all aged around 2 years and 10 months at the time of the first sweep of interviews in 2005/06, while the younger cohort were aged around 10 months (Bradshaw et al., 2006). For the purposes of this thesis, only data from the older cohort have been analysed. The reason for this is a mixture of the practical and the theoretical.

The main carer (the mother in 99% of cases) was interviewed annually for the first four sweeps of data collection. The main carer's partner was only interviewed at sweep 2. The coparenting literature reviewed in chapter 2 highlights the importance of collecting data from both the mother and father (e.g. Morrill et al., 2010). At the same time, there is recognition that differences between parenting styles and practices tend not to emerge until the child has reached two to three years of age, with the father following the mother's lead in the initial months (McHale, Kuersten-Hogan and Rao, 2004). It would therefore be quite difficult to assess collaboration using the birth cohort data. In addition, an extra set of questions was asked of the partner of the older cohort, allowing the assessment of a common understanding of the child, which was not asked of the partner in the birth cohort.

Details of the procedures used by ScotCen for sampling and data collection are provided in appendix A1. The sample was clustered, which was taken into account when conducting the analysis shown in chapters 6, 7 and 8.

4.2.2 Response rates and data weighting

Table 4.1 demonstrates response rates for each sweep of the data collection. While the response rates at each sweep are quite reasonable, close to 80% of achievable interviews at sweep 1, and 90% at subsequent sweeps, the overall rate of attrition builds up. By sweep 4, just over 60% of those cases which were considered achievable at sweep 1 were actually achieved as interviews. Information on whether a partner was resident is not available for cases for which no interview was achieved, but assuming the proportion of these cases with a resident partner is the same as for the achieved cases (around 80%), then the proportion of the original achievable sample which provided interviews at all four sweeps, and a partner interview at sweep 2, is below 50%. Even in this group, respondents did not necessarily answer every question, reducing the response rate, particularly for sensitive details, such as income, further still.

There are two problems with such attrition. Firstly, the overall sample size is reduced, thus making it less likely that findings are statistically significant than with a larger sample. Secondly, the characteristics of those who drop out, or who did not respond in the first place, tend to be different from the characteristics of those who continue with survey. Comparing the achieved sample to child benefit records of the non-achieved sample, it was found that respondents were more likely to be older, live in rural, non-deprived areas, and to receive benefit payment by account (Bradshaw et al., 2006). Those who dropped out after sweep 1 could be compared to those who continued, using GUS data from previous sweeps. They were more likely to be on a lower income, rent from a private landlord or a housing association, be a lone parent, be younger, be of a non-white ethnic background, have more than one child in the household, not use childcare, be in excellent health, be in a lower supervisory or technical occupation, or not work, live in a deprived area, and live in a large urban area (Corbett et al., 2007, 2008; Bradshaw et al., 2009).

Table 4.1 Response rates for the four sweeps of the Growing Up in Scotland child cohort

Sweep 1 (2005-06)	All eligible children	4,712
	Cases removed [1]	655
	Cases to field	4,057
	Achievable or 'in-scope' cases [2]	3,605
	Achieved interviews at sweep 1	2,858
	As % of all eligible children	61%
	As % of all 'in-scope'	79%
Sweep 2 (2006-07)	Achievable or 'in-scope' cases [3]	2,822
	Achieved interviews at sweep 2	2,500
	As % of all 'in-scope' sweep 1 cases	69%
	As % of achieved sweep 1 cases	88%
	As % of all 'in-scope'	89%
	Achieved cases with resident partner	1,998
	Achieved partner interviews	1,543
	As % of cases with resident partner	77%
Sweep 3 (2007-08)	Achievable or 'in-scope' cases [3,4]	2,582
	Achieved interviews at sweep 3	2,332
	As % of all 'in-scope' sweep 1 cases	65%
	As % of achieved sweep 1 cases	82%
	As % of all 'in-scope'	90%
Sweep 4 (2008-09)	Achievable or 'in-scope' cases [3,4]	2,453
	Achieved interviews at sweep 3	2,200
	As % of all 'in-scope' sweep 1 cases	61%
	As % of achieved sweep 1 cases	77%
	As % of all 'in-scope'	90%
	Number of cases with five complete interviews	1,368
	As % of all with partner at sweep 1	62%
	As % of all 'in-scope' sweep 1 cases with partner[5]	47%

Adapted from Bradshaw et al. (2006, 2009), Corbett et al. (2007, 2008), and GUS data

Notes

1 A number of cases were removed by the DWP before the sample went to field, for reasons of sensitivity or recent inclusion in other samples

2 Unachievable or 'out-of-scope' cases at sweep 1 were mainly incorrect addresses

3 Unachievable or 'out-of-scope' cases at later sweeps were mainly due to the family moving away from Scotland

4 The number of achievable cases at sweeps 3 and 4 is larger than the number of achieved cases at the previous sweep, because some respondents had not been interviewed at the previous sweep, but wished to remain part of the survey

5 Assumes the proportion of 'in-scope' cases with a partner for non-achieved interviews is the same as for achieved ones (80%)

Non-response from the partner at sweep 2 was most likely when there was more than one child in the household, the child was of a non-white ethnic background, the mother does not work, or both parents work at least 16 hours a week, and the family lived in a large urban area or small accessible town (Corbett et al., 2007).

To some extent, non-response bias has been controlled by the use of survey weights. The application of such weights means that cases which the weighting model suggests were more likely to respond are given a smaller weight than cases which the model suggests were less likely to do so. Thus, more weight is given to those from deprived areas, with more than one child in the household, etc. In addition to adjustments for dealing with the bias introduced by non-response and attrition, the weighting procedure used in GUS also takes into account the differential selection chances of twins and multiple cohort children compared to households with only one eligible child. The result of the weighting is that the sample size is effectively reduced further still, by around 8% (Bradshaw et al., 2009).

The weighting of data compensates for bias in the sample on the variables highlighted above, but cannot take into account bias in the sample on variables, such as that used to represent collaboration (see section 4.4), for which the characteristics of those who did not take part in the survey are unknown. The assumption has to be made that the weighting satisfactorily accounts for the bias on these variables also, even though that is not necessarily the case. The comment could be made for each of the research questions separately, that differential attrition may exaggerate or reduce the magnitude of any associations demonstrated. No attempts have been made to identify which of these is more likely.

Different weights are available for the cross-sectional and longitudinal analysis of each cohort. In conducting longitudinal analysis, the longitudinal weight from the most recent sweep should be used. The one exception to this is when partner data is used, in which case ScotCen have advised the use of the partner weight, as longitudinal partner weights are not available. In the analysis throughout this thesis, the partner weight has been used unless otherwise stated.

4.2.3 Limitations of GUS

The Growing Up in Scotland study, like any other government survey, has its limitations. Non-response and attrition are common to all cohort surveys, and over time can become an even greater issue. GUS is still relatively young, though. The four sweeps of data which have been analysed in this thesis cover a period of three years. This too has its problems. Many variables are included at one sweep only, while others show little indication of change over time. Many of the issues which make longitudinal studies particular exciting cannot be examined yet, as data only covers the period up to the start of school. Analysis of GUS data therefore has to be largely cross-sectional in nature. Unfortunately, there are no plans to collect further data on the older cohort, and so any follow-up to the analysis within this thesis using GUS data will have to be transferred to the child cohort.

The lack of repetition of data collected from the father (or respondent's partner) is perhaps the largest single concern for the purpose of this study. The follow-up interviews appear to confirm that in most cases, collaborative parents remain collaborative over a short period of time. It would, however, have been useful to confirm this through the GUS data, and to model changes in collaboration.

As an illustration of the lack of repetition of key variables, table 4.2 shows the sweep at which each of the main sets of variables used throughout this thesis are included in the GUS study. It shows that most of the control variables could have been taken from any sweep, many being constant, like birth order, or near constant, like parents' education. Where there was greater variation over time, such as in parental stress, sweep 2 tended to be chosen, to utilise the partner data. Collaboration could clearly only be operationalized at sweep 2, and there was also limited choice for a number of the variables to be treated as outcomes or to be tested for an association with collaboration.

Table 4.2 Variables / question sets used in the analysis of GUS data, and the sweeps at which they occur

	Respondent		Partner	Respondent	
	Sweep 1	Sweep 2	Sweep 2	Sweep 3	Sweep 4
Study child's age	2 yrs 10 m	3 yrs 10 m	3 yrs 10 m	4 yrs 10 m	5 yrs 10 m
Variable / question sets					
Variables used in the operationalisation of collaboration					
Readiness for pre-school		X	X		
Importance of activities		X	X		
Division of responsibilities for child	/	X	X	/	
Involvement with child *		X	X		
Relationship quality *		X	X		/
Variables tested for an independent association with collaboration					
Impact of employment on family		X	X		X
Work hours	/	X	X	/	X
Family-friendly employment practices		X	X		
Feelings about time with child	(-)	X	X	(-)	
Time away from child	X				
Activities with child *	(-)	X	X	/	/
Mealtimes				X	
Antenatal classes	X				
Sources of information used during pregnancy	X				
Sources of information used for health advice	X	/		/	/
Sources of information used on pre-school		X			
Sources of information used on primary school				X	X
Asking for advice	(-)	(-)			X
Discipline		X	X		X
Television viewing *	(-)	X		/	X
Vaccinations				X	
Breastfeeding	X				
Nutrition				X	
Variables treated as an outcome in analysis with collaboration as an independent variable					
Social, emotional and behavioural development		/			X

Variable / question sets	Sweep 1	Sweep 2	Partner	Sweep 3	Sweep 4
Variables treated as controls					
Sex of child	**X**	X		X	X
Number of children in household	/	/		**X**	/
Birth order	**X**	X		X	X
Child's general health	**X**	**X**		**X**	/
Developmental delays / low birth weight	**X**				
Parental health	/	**X**	**X**	/	/
Parent's marital status	/	**X**		/	/
Time living together	**X**				
Respondent's / child's ethnicity	**X**	X		X	X
Respondent's religion	/	**X**		/	/
Parental stress and depression	(-)	**X**	**X**	(-)	/
Parents' age	(-)	(-)		**X**	(-)
Parental education	/	**X**	**X**	/	/
Parental employment	/	**X**	**X**	/	/
Socioeconomic classification	/	**X**	**X**	/	/
Duration of maternity leave	**X**				
Income	**X**	**X**	**X**	**X**	/
Receipt of benefits	/	**X**	**X**	/	/
Material deprivation					**X**
Housing tenure	/	**X**		/	/
Area deprivation	/	**X**		/	/
Urban-rural classification	/	**X**		/	/
Satisfaction with area				**X**	
Use of childcare	**X**	/		/	/
Opportunities to leave child with someone	**X**	/		/	/
Close relationships		**X**			/

Key

All questions were asked of the main respondent (normally the mother). Where an X is indicated in the Partner column, these questions were also asked of the partner at sweep 2, and both responses were used.

A bold X indicates that responses to questions asked in that sweep were used in the analysis in chapters 6 to 8.

A grey X indicates the variable was constant across all four sweeps, although the details were checked at each sweep.

A grey / indicates the question set was repeated at that sweep, but responses were not used in the analysis.

A grey (-) indicates the variables available at that sweep are not fully comparable, and responses were not used in the analysis.

A blank cell indicates the questions were not asked at that sweep.

* Variables marked with an asterisk were also treated as controls in the analysis in chapter 8, in an adapted form.

Ideally, GUS would have included questions from a well-established scale of coparenting, such as the Parenting Alliance Inventory (Abidin and Brunner, 1995), and have collected responses from both parents at multiple time points. This could not have been expected, though, and the challenge of secondary analysis becomes one of using the data available, from the questions as they were asked, and not as one may have wished them.

An example of a potential set of statements to assess collaboration is included in appendix A2. Questions have been adapted from a number of sources (Abidin and Brunner, 1995; Fragile Families and Child Wellbeing Study[3]; Margolin, Gordis and John, 2001; McHale, 1997), as well as from my own thoughts on collaboration. This scale is not intended to be used in its current form, as I have not gone through the process of valid scale construction (see Clark and Watson, 1995; DeVellis, 2003; Netemeyer, Bearden and Sharma, 2003; and Spector, 1992). It is included for illustrative purposes only, and as a starting point for discussion of further research (see chapter 9).

From examination of the GUS website[4], it is not clear whether GUS was commissioned with any particular research questions in mind. As such, the derivation of certain variables has taken place on the available data, rather than being planned in advance. For example, the Home Learning Environment scale has been built from a series of 12 questions at sweeps 2 and 3, which were not originally intended to be treated in a single scale (see Melhuish, 2010). The validity of such scales must therefore be questioned. Similar studies, such as the Longitudinal Study of Australian Children[5], or the Early Childhood Longitudinal Study[6] in the United States, have been designed to answer specific questions, and therefore make use of established scales. In the Longitudinal Study of Australian Children, it was planned in advance of the first questionnaire development, how particular questions would be addressed,

[3] http://www.fragilefamilies.princeton.edu/
[4] http://www.growingupinscotland.org.uk/
[5] http://www.aifs.gov.au/growingup/
[6] http://nces.ed.gov/ecls/

and therefore considerable attention was paid to the construction of relevant scales (Sanson et al., 2002).

A time-use study would have been advantageous in answering the second of the research questions. GUS cannot provide accurate estimations of time spent on particular activities, but does have advantages over such studies in the richness of the other information it contains, being unique in its relevance to Scottish policy development. A further benefit of using data from GUS is that the GUS sample can be used as a sampling frame for further interviewing. With permissions, any subsequent interviews can be matched into the original dataset.

4.3 Follow-up Interviews

4.3.1 Ethics of interviewing

Permission to undertake the follow up interviews was given ethical clearance by the University of Edinburgh, the Scottish Government, who fund the GUS study, and by ScotCen. In all cases, no concerns were raised. ScotCen managed the initial contact with potential interviewees, all of whom had previously given permission to be contacted regarding further research.

The interviews were all with people over the age of 18. All interviewees were informed of the nature of the study in writing before they were invited to participate, on the telephone, when the interviews were arranged, and again, both in writing and in person, when the interviews were conducted. On two occasions, information had not been passed from one parent to the other regarding the interviews. In each case, the second parent was given the option to refuse participation, but chose not to do so. Everyone gave written permission to be interviewed, to have the interview recorded, and the transcript used for my research purposes. Further written permission was given to have the transcripts archived, and to match the interview data with the GUS data. A copy of the consent form is included in appendix A3.

During the interviews, there was no discussion of any topic which could damage the relationship between parent and child. However, there was discussion around sensitive topics, such as relationship difficulties, and stress related illness or depression. Participants were reminded prior to, and on one occasion, during the interview, that they did not have to answer any questions they did not wish to answer, and that all responses would be treated confidentially. As part of the information pack that all couples were given, a sheet of contact numbers was provided for services that may be able to provide counselling or support for any of the more sensitive issues covered.

No issues regarding my own safety were expected or occurred. All participants had previously taken part in the GUS study, inviting interviewers into their own homes, without any concerns being raised by the GUS interviewers.

4.3.2 Sampling and interview arrangements

It was decided that interviews with 20 couples would be sufficient to get a clear idea of the process of collaboration in different situations. To get a picture of both collaboration and non-collaboration, 10 couples in each group were interviewed. While no formal validation process was attempted, the intention was to compare assessments of collaboration in the interview data with assessments in the GUS data, so a link between the qualitative descriptions of collaboration and the quantitative collaboration variable could be made.

To achieve interviews with 20 couples, a sample of 28 was drawn by ScotCen, for a fee. For convenience, it was requested that the sample consist only of households in and around Edinburgh. Initial analysis had shown no significant association between collaboration and any of the area variables available on the dataset (level of area deprivation and level of urbanity / rurality). It was therefore assumed that the collaborative processes demonstrated in interviews within Edinburgh would broadly reflect those throughout the whole country.

In order to include a range of circumstances, the sampling process made use of a second variable, stress. Subjective notions of stress were used, as it was thought that this may provide more distinction in terms of process than more objective measures, such as income. At sweep 2 of the GUS study, both parents were asked three questions, in the self-completion section, to assess how stressed they were. They were asked how frequently the following had applied over the previous week:

I found myself getting upset rather easily
I found it difficult to relax
I found that I was very irritable

Possible responses were:

0 *Did not apply to me at all*
1 *Applied to me to some degree or some of the time*
2 *Applied to me to a considerable degree, or a good part of the time*
3 *Applied to me very much or most of the time*

The values assigned to each response were summed for the three questions, and each parent was considered moderately or highly stressed if the sum came to 3 or more. If either parent was moderately or highly stressed, the couple were deemed to be stressed for the purpose of sampling.

In fact, this stress variable, assessed at sweep 2, turned out to be a fairly poor predictor of the stress demonstrated by couples when they were interviewed, four years later. While some individuals recognised that they had been stressed for a long period of time, most couples went through short periods of stress, when there were significant events, such as the death of a parent, or major building work. When it proved difficult to recruit a fifth pair of respondents in the collaborative / non-stressed group, it was considered satisfactory to substitute an interview from the collaborative / stressed group, as some of these were not stressed at the time of the interviews. A summary of the outcomes for the sample is provided in table 4.1.

Table 4.3 Outcomes for interview sample

	Collaborative		Not collaborative		
	Stressed	Non-stressed	Stressed	Non-stressed	All
Achieved	6	4	5	5	20
Refused	-	-	-	1	1
Temporary refusal	-	1	-	-	1
Incorrect phone number	1	1	-	2	4
Never contacted	-	-	2	-	2
All in sample	7	6	7	8	28

The sample was drawn by ScotCen, who wrote to all 28 couples, informing them of the nature of my research, and giving them the option to get in touch with ScotCen if they did not wish to have their contact details passed on. No couple took up this option. Of the 28 couples, 4 had incorrect home telephone numbers. Mobile numbers had also been provided, but it was decided not to use these, as it seemed likely that these couples had moved home, and would therefore probably not be aware of my study. One couple, after I had telephoned them, said they did not wish to take part. A second said they could not take part at the present time, due to seasonal work commitments, but would have been able to do so at a later date. Two couples were never contacted, as a sufficient number of interviews had been achieved.

Interviews were originally arranged between April and August 2010, in the respondents' homes, although the final three interviews were postponed by three months, for personal reasons. Each parent was interviewed separately, so as to assess differences in their understanding of their children, as well as to encourage honesty in responses. Interviews were arranged at the convenience of the respondents, which meant interviewing both parents one after the other in all but one case.

4.3.3 Conducting the interviews

Interviews took on average 50 minutes each, the shortest being around 30 minutes, and the longest 1 hour 10 minutes. The second of the two interviews with any couple tended to be the shorter, as these respondents were not pressed for details of

straightforward matters that had already been covered in the first interview (unless accounts differed). Couples were given a little background about the study verbally, and provided with a pack of information, including a description of the study, a copy of the consent form they were asked to sign, a list of telephone numbers and website addresses that may be of use, should they have wished to take any matters arising in the interviews further, and a couple of publications from CRFR on the theme of parenting. The study description, consent form and list of numbers are included in appendix A3. On completion of the interviews, they were also provided with a £30 gift token, to thank them for their participation.

The consent form consisted of three sections, all of which both partners were asked to sign. The first section gave permission for the interviews to be recorded, and for me to present any work resulting from the interviews, in both written and oral form, without the need for further permission to be sought. The second section gave permission for suitably anonymised transcriptions of the interviews to be passed to the UK data archive. One person chose not to sign this section. The final section gave permission for ScotCen to provide me with the personal identifiers, allowing me to link data from GUS with that from the interviews. It was decided not to request permission for this link to be made available to others via the data archive, as the combination of both sets of data may make the identification of some couples possible.

The interviews were semi-structured. I entered them with an idea of what I needed to know to be able to assess how well a couple were collaborating, and questions were focused on achieving this. While I had prepared a list of questions, these were rarely referred to, after the first couple of interviews, as it was found to be easier to respond to a participant's answer without having too many specific questions in mind. Instead, respondents were encouraged to give illustrative examples in relation to a number of themes. The themes changed to some extent over the course of the interviewing schedule, as some areas proved of more interest than others. The themes used in most of the interviews are listed below:

- Understanding of the child(ren), and how they are getting on at school
- How the parents came to a decision over schools
- Organised activities
- Responsibility for the children at different times of the day
- Direct involvement throughout the day
- Long term aims for the children
- Decisions about parental employment
- Impact of work on the family
- History of work and its impact
- Feelings about partner's work
- Stress
- Discipline
- Rules (e.g. around TV, computers)
- Routines (e.g. bedtimes, mealtimes)
- Influence of partner on self and self on partner
- Communication
- Time for self / partner
- Support network
- Effectiveness as parents
- Effect of parenting on adult relationship
- Times when working together has been more difficult

Some of these themes were not always asked about directly, as discussion had already taken place on them in relation to an earlier theme. Other themes which were pursued in some interviews, but dropped in the later ones, as they rarely produced interesting responses, included:

- Trust (only one parent admitted to not trusting her partner 100% of the time)
- Budgeting / expenditure (all lived within their means)
- Decisions around Christmas and birthday presents (only caused an issue in one case)

- Planning family holidays (normally delegated)
- Own upbringing (it was originally the intention to look at whether similarity in upbringing led to more similar parenting styles, but there was no evidence for this)
- Values (generally the same for both partners)
- How respondent thinks government could help them (rarely mentioned anything other than money or childcare)

No piloting of the interviews was carried out, although parts of the interview were tested during an interview training course at the university. In effect, the first pair of interviews became the pilots, but the findings were clear enough to be included in the overall results.

There are those who have argued that social research methods are gendered, with quantitative being masculine, and qualitative methods feminine (see Oakley, 1999). As a man conducting semi-structured interviews on the subject of parenting, I am certainly in the minority. This, however, did not appear to affect the rapport that was built up with those being interviewed. Approaching the interviews, I was certainly aware of the "baggage" I brought with me (Arendell, 1997), as a white, middle-class, well-educated male. By interviewing people in their own homes, I had hoped to minimise any power imbalance. This was successful, to the extent that only one woman, who confessed to suffering from depression, showed any signs of nerves during the interview, although she was very willing to respond fully to my questions.

Rather than being a man, my status as a father-to-be or new father probably affected my interviewing more than anything else. A number of the respondents said that nothing could prepare one for parenthood. Although I had a certain academic knowledge of motherhood and fatherhood, the respondents all had practical knowledge of parenthood, which was of interest to me on a personal as well as academic level. I only revealed my status to those who asked, or to those whose interviews I had postponed when my sons were born, but I did notice on a couple of occasions that male participants opened up part way through an interview after

asking if I had children. Female participants did not need any such impetus to talk about parenting.

4.3.4 Transcription, anonymisation, archiving and feedback

Interviews were recorded using a hand-held digital recording device. Near-complete transcriptions of each interview were made by me within a week or two of each interview. All names were changed, and other potential identifiers, such as place names, replaced with a general description, such as "North Edinburgh", or "English town". The 19 pairs of transcripts for which permission was given will be lodged with the data archive once final checks on anonymity have been completed. Feedback to all interview participants will be provided by way of a short note describing the main findings from my study.

4.4 Operationalisation of the concept of collaboration using data from GUS

In chapter 3, a definition of collaboration was constructed, which builds on Feinberg's definition of coparenting of "the ways that parents work together in their roles as parents" (Feinberg, 2002, p.173). This definition states:

> Collaboration is the process by which co-resident parents work together for the benefit of their children. Such process requires parents to form a common understanding of their children and their children's needs and common aims for the development of the children, to take joint responsibility for, and to both be involved with, the children and their activities, and to support each other in their parenting.

While coparenting is a process that, from Feinberg's definition, occurs whenever there is more than one parent figure, collaboration has been defined in such a way that it only occurs in certain circumstances, when the parents meet the requirements listed. Parents can therefore be divided into those who collaborate, and those who do not. This is an over-simplification of the process, but one that is helpful to make, for the purposes of further analysis.

In the following sections, I will describe how the GUS data has been used to operationalise the concept of collaboration, using four dimensions taken from the above definition: common understanding; common aims; joint responsibility and involvement; and having a supportive relationship. The method of combining these dimensions is also given consideration. To begin with, I shall consider the theory of building such an operationalisation.

4.4.1 Inverse operationalisation ("innocent until proven guilty")

As previously discussed, GUS was never intended to be used to examine coparenting or collaboration. It therefore contains few questions which could be used to directly assess the collaborative nature of any couple. It does, however, contain many questions which are related to the concept. This suggests that a process of "inverse operationalisation" may be successful. To my knowledge, this is not a process that has been commonly used. The theory behind, and the practical application of, this method are discussed in greater detail in a recently published article of mine (Hinchliffe, 2012).

Inverse operationalisation, as I have defined it, starts with the assumption that all couples in the dataset are collaborative, unless there is sufficient evidence to suggest otherwise. This does not imply that they act collaboratively all of the time, but that at the higher level of the collaboration cycle discussed in chapter 3, the process tends to

run efficiently. This is similar to saying someone is innocent until proven guilty, except that the level of evidence required to suggest non-collaboration is rather lower than that to prove guilt.

The normal process of operationalisation would be to build a scale from a number of variables within the dataset. One end of the scale could be described as collaborative, the other as non-collaborative. The problem with this method is the lack of suitable variables. When one uses a set of variables designed to be built into a scale, such as those for stress listed in section 4.3.1, one can measure their internal validity by calculating Cronbach's alpha (Cortina, 1993; Cronbach, 1951). This basically assesses how well correlated the items are with each other. The three items in the stress scale for the partner have an alpha of 0.726 (n = 1,421), while for the main respondent, restricting the data to those with a partner who responded, alpha is 0.746. These are both satisfactory values, implying a degree of internal consistency. However, when one uses a more disparate set of items, the value for alpha will be lower, implying that it is not sensible to use them to measure a single concept.

Factor analysis uses similar measures to identify variables that are well correlated, and hence can be said to measure a single concept. The main problem, though, is that the concept is not necessarily the one that one would like to measure.

The process of inverse operationalisation gets around these problems. It does away with the need for internal consistency between items. In this respect, it is more like constructing an index (Diamantopoulos and Winklhofer, 2001). Rather than building a scale, it chips away at the data, asking what value of each variable, or what combination of values for a set of variables, make it unlikely that the couple are collaborative? Rather than relying on statistical tests, it relies on a theoretical understanding of the concept.

The coparenting literature highlighted in chapter 2 repeatedly says that the process of coparenting is not the same as that of the couple relationship, although there is an association between the two. The process of inverse operationalisation allows one to

use evidence about the couple relationship to say that it is unlikely that collaboration is happening if the couple relationship is of a certain low quality, while retaining the recognition that the concepts of collaboration and relationship quality are different.

Research into coparenting tends to treat different dimensions of coparenting separately. With this style of operationalisation, it is more appropriate to consider the whole, although it is helpful to make use of a number of different dimensions in constructing the variable. In order to achieve a variable that captures the concept of collaboration, one must chip from multiple directions. Returning to the definition given above, four different dimensions can be highlighted. These are having a common understanding, having common aims, joint involvement and responsibility, and having a supportive relationship. These have been considered separately, in terms of the choice of questions, the interpretation of responses, how to combine questions, how to deal with missing data, and any other issues. A complete justification of every decision for every issue regarding these decisions is not provided, as the thinking behind each is often very similar. A summary of the operationalisation is provided in section 4.4.2. This is followed by a few comments on some of the more complex decisions.

The final operationalisation should provide a binary variable, dividing the data into those more likely to act collaboratively, and those less likely to do so. The proportion of couples in the data who are categorised as collaborative is not meant to be an exact reflection of the proportion in the population who act collaboratively. The distinctions in some question categories are not always fine enough to divide the data as one may wish, and decisions are sometimes influenced by the necessity to classify a sufficient proportion as collaborative, so that the final operationalisation is useful for the analysis presented in subsequent chapters.

4.4.2 Summary of operationalisation of collaborative parenting

The operationalisation of collaborative parenting can be summarised as follows:

Meet the relaxed criteria for all four dimensions, and the strict criteria for at least three of them.

Dimension 1: common understanding

Variables:
Both maternal and paternal responses to the following five statements:

- "I was concerned that {childname}[7] would be reluctant to go to {pre-school}" [MbPRrd02 / PbPRrd02]
- "I felt that {childname} was able to mix with other children well enough to get along at {pre-school}" [MbPRrd03 / PbPRrd03]
- "I believe that {childname} understood enough about taking turns and sharing to manage at {pre-school}" [MbPRrd04 / PbPRrd04]
- "{childname} could go to the toilet on his own before starting his pre-school place" [MbPRrd05 / PbPRrd05]
- "I was worried that {childname} was not independent enough to cope with his pre-school place" [MbPRrd06 / PbPRrd06]

Criteria for demonstration of common understanding:
Count up how many discordant responses there are for parents, in the sense of how many of these items the mother responds "disagree" (to either degree), but the father "agree", or vice-versa. (Uncertain, or single missing responses, have been ignored for the purposes of determining discordance.)

[7] Words given in curly parentheses are substituted in the CAPI script. {childname} would be replaced by the actual name of the child, say, John.

The strict criterion is zero discordances, the relaxed is one.

Dimension 2: common aims

Variables:
Both maternal and paternal responses to the following seven questions:

- How important is it for you that {childname} experiences social activities such as visiting friends or relatives or having friends or relatives visit you? [MbAatt01 / PbAatt01]
- How important is it for you that {childname} experiences cultural activities such as visiting museums or going to live performances for children? [MbAatt02 / PbAatt02]
- How important is it for you that {childname} gets to run around and play outside? [MbAatt03 / PbAatt03]
- How important is it for you that {childname} takes part in exercise – for example, going swimming or doing dancing or gymnastics? [MbAatt04 / PbAatt04]
- How important is it for you that {childname} experiences educational activities such as reading books or drawing and painting? [MbAatt05 / PbAatt05]
- How important is it for you that {childname} watches some TV? [MbAatt06 / PbAatt06]
- How often do you and your partner disagree over issues relating to bringing up {childname}? [MbMrel05/PbYrel05]

Criteria for demonstration of common aims:
Count up how many discrepancies between parents' responses there are for the first six items. A difference between very important and quite important, or quite important and neither / nor, or neither / nor and not important (either degree) counts

as 1, a difference between very important and neither / nor, or quite important and not important counts as 2, and a difference between very important and not important counts as 3. (Where data are missing for a single question, the number of discrepancies has been scaled up accordingly.)

The strict criteria are no more than 2 discrepancies, and both the mother and father stating that they disagree over issues relating to bringing up the child less than once a week or never. The relaxed criteria are no more than 3 discrepancies, and both the mother and father stating that they disagree over issues relating to bringing up the child at most once a week.

Dimension 3: joint involvement

Variables:
Both maternal and paternal responses to the following eleven questions:

- can you tell me who is mostly responsible…
  - for feeding him [MbPfed01/PbPfed01]
  - for getting up in the night if he cries or needs to be comforted [MbPcar01/PbPcar01]
  - looking after {childname} when he is ill? [MbPhea01/PbPhea01]
  - generally being with and looking after {childname}? [MbPcar02/PbPcar02]
- Can you tell me how often you do these activities with him?
  - bath him? [MbPact01/PbPact01]
  - read to him? [MbPact02/PbPact02]
  - play with him? [MbPact03/PbPact03]
  - cuddle him [MbPact04/PbPact04]
  - And how often do you just chat or talk to him [MbPact05/PbPAct05]
  - How often do you dress {childname}? [MbPact06/PbPact06]

- And how often do you get him ready for or put him to bed? [MbPact07/PbPact07]

Criteria for demonstration of joint involvement:
Sum the responses to the last seven questions for each parent separately (1 = less than once a week; 2 = once or twice a week; 3 = a few times a week; 4 = once a day; 5 = more than once a day).

The strict criteria are a sum of at least 24 for each parent, or 23 when there are 3 or more children present in the household, ***and*** both partners state that both they and their partner each share or take on the main responsibility for at least one of the four childcare tasks. The relaxed criteria are a sum of at least 22 for each parent, or 21 when there are 3 or more children present in the household, ***or*** both partners state that both they and their partner each share or take on the main responsibility for at least one of the four childcare tasks.

Dimension 4: supportive relationship

Variables:
Both maternal and paternal responses to the following four statements / questions:

- My partner is usually sensitive to and aware of my needs [MbMrel01/PbYrel01]
- My partner doesn't seem to listen to me [MbMrel02/PbYrel02]
- How often is there anger or hostility between you and your partner? [MbMrel08/PbYrel08]
- How often do you have arguments with your partner that end up with people pushing, hitting, kicking or shoving? [MbMrel09/PbYrel09]

Criteria for demonstration of a supportive relationship:

The strict criteria are that both partners agree that their partner is usually sensitive to their needs; and both partners disagree that their partner doesn't seem to listen; and both partners admit to there being anger or hostility no more than once a week / sometimes; and both partners say there are never any arguments ending in pushing or hitting. The relaxed criteria are that neither agrees that their partner doesn't seem to listen; and both partners admit to there being anger or hostility no more than once a week / sometimes; and both partners say there are never any arguments ending in pushing or hitting.

4.4.3 Decisions regarding the combination of items

In the previous section, it was seen that a number of decisions have been made regarding the combination of items to operationalise the concept of collaboration. In this section I will defend some of these decisions, to give an indication of the thought process behind the operationalisation, in an attempt to demonstrate its face validity. To avoid a lot of repetitive argument, I will not discuss all the decisions, although each could be defended in a similar way.

Choice of items

The initial pool of variables for consideration was considerably larger than those included in the final operationalisation. All were theoretically associated with parental collaboration. The item pool was reduced by selecting only variables for which both maternal and paternal responses were available. Further items were removed if each parent was effectively responding to a different statement, for example, "I was worried that {childname} would find being apart from me too difficult", which would elicit different responses from each parent, even if they agreed that the child would find being apart from the mother difficult. Other items were removed according to their relevance to parental collaboration. Overall, though, attempts were made to keep the number of items large, so that couples could be assessed as collaborative or not on a range of evidence.

Interpretation of response codes for individual items

Response codes were considered for each item on its own, as well as in combination with other items. The neutral response to each question in the commons aim dimension often appeared in combination with a positive or negative response from the other parent. This was interpreted as not demonstrating any evidence of a lack of collaboration, as the neutral response may be used when multiple situations are considered, and the positive or negative when just thinking of one example. In the joint involvement dimension, the final seven items each represented a frequency of doing an activity, such as reading to the child, from less than once a week, to more than once a day. The response scale of 1 to 5 does not capture these frequencies, but it was decided to keep these, rather than recode to represent the number of days per week on which the parent read to the child (from 0.5 to 14), as, in combination with other items, too much emphasis would have been placed on doing activities more than once a day. Interpretations also had to be made of some of the relationship variables, as to what determines reasonable evidence for a lack of support with respect to parenting. Some of these interpretations had to be adjusted when other variables were considered, so as not to put too much emphasis on single variables.

Combining items within dimensions

The use of standardised variables is common in the construction of scales. This has the effect of putting more weight on variables with less variation. To use variables in this way would introduce an additional layer of complexity, which may actually reduce the overall utility of the operationalisation, by excessively emphasising some variables, or sets of variables, and limiting the impact of others.

This does not mean that all variables do have equal emphasis in the operationalisation of collaboration. Each *dimension* is intended to carry equal weight, so individual variables in the fourth dimension, of having a supportive relationship, naturally carry more weight than variables in the larger third dimension, of joint involvement. Similarly, where there are subdimensions, as in the second and third dimensions, each subdimension carries equal weight. Hence the one question on

disagreement over issues relating to bringing up the child in the second dimension, which is intended to represent having shared short-term aims, carries a lot more weight than each of the six questions on the importance of activities, which together are meant to represent shared long-term aims.

The initial intention was not to allow any single variable to be considered sufficient evidence for non-collaboration. Summing variables, or offering alternative options, as was done in the first three dimensions, is one way of achieving this. Strict and relaxed criteria also assist with this aim. Unfortunately, this could not be achieved in the relationship dimension, or in the short-term aims subdimension, due to the limited number of questions available to represent these. The four questions which can dictate non-collaboration on their own only do so in a small number of cases. For each of these variables, there is also sufficient theoretical reasoning for allowing this, for example, if one parent agrees that their partner doesn't seem to listen to them, then effective collaboration is clearly not taking place.

The combination of items within each dimension also had to be considered with reference to a target proportion meeting the strict and relaxed criteria for each dimension. As there was no theoretical reason for placing greater emphasis on any of the dimensions, these target proportions were the same for each dimension, and chosen to be 80% meeting the relaxed criteria, and 50% meeting the strict criteria. These numbers have no real meaning beyond dividing the sample into the 50% who best demonstrate common aims, for example, and the 50% who do not demonstrate common aims to the same extent. The proportions were chosen purely to create a workable split in the data. Because of the nature of the data, there was some variation between the dimensions in the proportions who did actually meet the criteria, but not to the extent that the operationalisation was imbalanced in favour of any of the dimensions.

In the third dimension, concerning the demonstration of joint involvement and responsibility, the criteria had to be adjusted for larger households, as when more children were present, both parents tended to do fewer activities with the study child.

It was thought that this was not a demonstration of less involvement from the parents, but simply a demonstration that their time had to be divided. The adjustments were such that the proportion of the sample meeting the criteria for larger and smaller households was the same.

Table 4.4 Sum of paternal responses to involvement questions, by number of children in the household

	Number of children			
	1	2	3	4 +
Sum of paternal responses	Cumulative percentages			
18	4	6	10	9
19	6	8	11	17
20	9	13	18	24
21	15	19	25	32
22	26	27	37	40
23	35	37	48	61
24	47	48	58	68
25	58	59	69	80
26	71	70	79	89
27	81	80	86	96
Sample size	*341*	*848*	*278*	*75*

Growing Up in Scotland sweep 2: child cohort (unweighted)

Table 4.4 shows the cut points chosen on the paternal involvement scale for meeting the strict and relaxed criteria in this dimension. It shows that the 35% of fathers with one child failing to meet the strict criterion, by achieving a score of 23 or below, is roughly equivalent to the 37% with two children, and 37% and 40% of those with three or four children achieving a score of 22 or below. The relaxed criteria were considered in the same way. No adjustment was made for the difference between 3 and 4 children, because of the small numbers involved. When combined with the other elements of this dimension, the proportion passing the criteria are close to the target proportions. None of the other dimensions had any theoretical associations with the characteristics of the household, so did not need to be adjusted in such a way.

In each of the dimensions, if responses were missing for a single question, either responses to the other questions were scaled up accordingly, or, for the relationship questions, just one parent's response was considered. Where responses to a whole set of questions was

Combining dimensions

The relaxed criteria for each of the dimensions are designed such that if they are not met, there is sufficient evidence to say that in all likelihood, the couple are not acting collaboratively. Thus, these are necessary conditions for determining collaboration. The strict criteria are designed such that if they are not met, it appears unlikely that the couple are acting collaboratively, but there may be other evidence to the contrary.

A sensible way of determining those couples who act collaboratively and those who do not, therefore lies in meeting some combination of strict and relaxed criteria for the four dimensions. From what has been said above about the strict criteria, failing to meet any of them provides no positive evidence of collaboration, so it is clear that such couples should be classed as non-collaborative. Meeting just one does not provide sufficient evidence to overcome the evidence in favour of non-collaboration. Meeting the strict criteria for all four dimensions cannot be expected, as it leaves no room for different types of collaborative couple, such as those who do not have a perfect relationship, but work together very effectively for their children, or those who divide the childcare unevenly because of work commitments, but are still united in their childrearing.

On this basis, meeting the strict criteria for three dimensions and the relaxed criteria for the fourth is sufficient to determine collaboration. The question is now whether meeting the strict criteria for two dimensions and the relaxed criteria for the other two is also sufficient. Table 4.5 summarises the proportion of couples in the sample meeting different combinations of the strict criteria as well as all four relaxed criteria.

Table 4.5 Percentage of couples meeting different combinations of strict criteria, and all relaxed criteria

Common Understanding	Yes	Common Aims	Yes	Joint Involvement	Yes	Supportive Relationship	Yes	8.1
							No	2.6
					No	Supportive Relationship	Yes	4.8
							No	2.1
			No	Joint Involvement	Yes	Supportive Relationship	Yes	4.1
							No	1.5
					No	Supportive Relationship	Yes	3.5
							No	2.0
	No	Common Aims	Yes	Joint Involvement	Yes	Supportive Relationship	Yes	3.2
							No	1.1
					No	Supportive Relationship	Yes	3.7
							No	1.0
			No	Joint Involvement	Yes	Supportive Relationship	Yes	1.7
							No	0.8
					No	Supportive Relationship	Yes	1.5
							No	1.5
Total meeting all four relaxed criteria								43.4

strict criteria for all 4 dimensions
strict criteria for 3 dimensions and relaxed for other 1
strict criteria for 2 dimensions and relaxed for other 2
strict criteria for 1 dimensions and relaxed for other 3
strict criteria for no dimensions and relaxed for all 4

Growing Up in Scotland sweep 2: child cohort (unweighted)

This shows that 8% of couples meet the strict criteria for all four dimensions. 23% meet the strict criteria for at least three dimensions and the relaxed criteria for all four. 37% meet the strict criteria for at least two dimensions, and the relaxed criteria for all four. 42% meet the strict criteria for at least one dimension, and the relaxed criteria for all four, while 43% meet the relaxed criteria for all four dimensions.

Insisting on the meeting of the criteria for three of the dimensions, and not being obviously non-collaborative on the fourth, means that there are a group of 332 couples who are broadly demonstrating collaboration. Insisting on only two dimensions adds a large number of borderline cases into the group defined as collaborative. While some may genuinely be collaborative couples, their answers to the questions which have formed my operationalisation of the concept have not demonstrated such. The 37% meeting the relaxed criteria for all four dimensions and

the strict criteria for at least two is not hugely different from the 43% meeting the relaxed criteria for all four. Therefore they should both be classed as non-collaborative. The 23% meeting the strict criteria for at least three does form quite a distinct subset.

In order to meet the criteria for collaboration, the relaxed criteria for all four dimensions must be reached. There can therefore be no missing data, beyond that allowed within each dimension, for those defined as collaborative. However, if the criteria are not met for one dimension, couples are still defined as non-collaborative, even when data for other dimensions is missing. This means that the proportion defined as collaborative is an under-estimate of the proportion who would be defined as collaborative if there were no missing data, as collaborative couples with missing data are all set to missing, while non-collaborative couples with missing data can be defined as either missing or as non-collaborative. This is not a problem, as I wish to use the operationalisation to explore the effects of, and the contributory factors to, collaboration, rather than exploring the proportion of the population defined as collaborative.

4.5 Operationalisation of the concept of collaboration within the interview data

In the next chapter, a comparison is made of assessments of collaboration using GUS data and assessments of collaboration using the interview data. This is not meant to provide a formal validation of the operationalisations, but to demonstrate that there is a link between collaboration as described in the interviews, and collaboration as discussed in the quantitative analysis. Rather than using exactly the same dimensions to operationalize the concept in the interview data, it was thought more appropriate to use different dimensions, to ensure an overall assessment of collaboration is made, rather than confirmation of specific dimensions, which might not cover the whole of the concept. Two dimensions were selected for this purpose: communication about

the children, and support for each other as parents. The understanding of support here does differ from that in the quantitative operationalisation, as it is about the role as parents.

These dimensions reflect broadly what may be understood about communication and support from the coparenting literature. Parents were asked specifically about both concepts during their interviews, although the evidence used draws on the whole of each pair of interviews. Both concepts were naturally evoked in response to a range of questions, such as discipline or decision making.

Couples were assessed as communicating well about the children, occasionally failing to communicate well, or regularly failing to communicate well; and as being supportive of each other's parenting, of sometimes not being supportive, or frequently not being supportive. Examples of what constitutes different levels of communication and support are provided in sections 4.5.1 and 4.5.2. Looking at these dimensions together, provided an overall assessment of collaboration. In most cases good communication went hand in hand with high levels of support, and these couples were assessed as collaborative. Less good communication was associated with lower levels of support, and these couples were assessed as non-collaborative. Only in one case did the evidence from the two dimensions conflict. Had this been a team project, it would have been ideal for the person doing the assessment to have no knowledge of whether the couple were described as collaborative or not, according to the GUS data. However, the GUS data had been used in the sampling process, so I had been aware at the time of the interviews as to which couples had been described as collaborative. This did not affect the way in which the interviews were approached. While I deliberately avoided referring to the GUS data when making the assessments based on the interview transcripts, it is not possible to claim the assessments were done blind, as would have been preferred, which would have allowed a formal validation of the operationalisations.

The main part of each interview was taken up with discussion about the recent past, as individuals tended to offer examples of recent behaviour, often things that had

happened that day. Couples were also asked about the whole of their experience as parents, which offered a more complete picture of how communication and support change over time. The information garnered in relation to this tended to focus on stressful periods, with only a few words about the underlying pattern. In most cases, these few words suggested little change. This lack of change makes the comparison between the GUS assessment of collaboration, when the study child is aged just under 4, and the assessments of communication and support conducted four years later easier.

4.5.1 Communication about the children

The concept of communication considered the frequency of communication about the children, the time and place in which it was done, and its purpose. It was built from ideas of negotiation about roles, rules and routines, communication about discipline, enjoyment of talking about the children, joint decision-making, and joint planning. Couples were categorised as being good communicators, sometimes poor, or often poor, based on their own admissions. The best communicators discussed everything about their children, both positive and negative, and in doing so, appeared to understand their children and their needs in a similar manner. They knew what decisions could be made on their own, and they knew what had to be talked about *before* acting. Marian Turnbull[8], for example, having said she discussed everything with her husband, was asked if there were any decisions she would make without him:

> Mrs T I think day to day things. "Mum, can I go to a club?" "Yeah, okay." "No, you can't." It seems to be only the more important things. For example, I was in Leah's [age 15] bedroom this morning, and found a packet of ten cigarettes, empty in her bedroom drawer. So I phoned Dennis at work, said "you'll never believe what I've just found." And he's "what did you find?" "An empty pack of cigarettes" And he's like "right, what have you done?" I said "nothing, I've

[8] All names have been changed.

just left them." You know, we're going through the scenarios, and he's like "right, we'll speak to her when she comes in".

Marian Turnbull knew what decisions to make on her own, because the rules of how each parent will act have already been negotiated. When she discovered the cigarettes, this was an unusual situation, so she felt it important to speak to her husband before acting. Good communication was often done before an event, but if it was left until afterwards, good communicators were also prepared to challenge each other's actions, while maintaining a united front to present to the children.

Even without looking at the meaning of what is being said, it is possible to some extent to tell which interviewees communicated well with their partner. The use of the word "we", rather than "I", was one give away. Greg McAllister:

Mr M I think we spent a bit of time, sitting down when we were trying to decide about Amelia's schooling, whether we should or shouldn't move her, coz she had quite a lot of friends, and as I say, friends are very important to her, so, although we were very unhappy, and didn't particularly like the school, and were worried about the education, clearly we kind of thought, well, she's quite content, maybe we should or shouldn't...

The McAllisters also brought up similar examples to each other, when asked broad questions, implying a level of communication between the two that led to a similar understanding of their children and their children's needs.

Weaker communicators often lacked the time to talk to each other about their children. While both the Turnbulls and the McAllisters made sure there was plenty of time at the end of every day to spend together, other parents saw little of each other when the children were not present. Julie Kemp was asked if she managed to keep her partner informed about the children:

Ms K Sometimes, if they're really naughty and they've done something really bad [laughs] I'll phone him and tell him, "you'll never believe what he's done". But other than that I just catch up with him at some point and tell him. I often forget to tell him half the stuff that goes on but stuff like school and that, I

> usually leave Callum's homework folder lying and Simon will scan over it or… no, not really, just, no, unless they're really naughty I'll tell him…

Julie's partner worked shifts, which made communication a problem. A lot of information was never passed on, leading to the two parents working quite separately with their children. Negotiation of roles rarely took place. Where information was passed on, there was little joint evaluation of what it meant for the family.

4.5.2 Support for each other as parents

The most obvious form of support, which was evident in most of the interviews, was the backing up of each other's disciplinary decisions. This appeared fairly universal, even among those classed as non-collaborative, such as the Petersons (see section 5.2.3). Those couples who came across as the most supportive tended to both compliment each other's abilities as a parent. They listened to each other, recognised each other's needs, and gave each other time for themselves.

Support was particularly obvious in times of difficulty, for example, when Aidan Laing was studying for his finals at university, or Dennis Turnbull's business was failing. While such stressors are not directly about parenting, Aidan and Dennis, and their partners, were all very willing to renegotiate parenting roles, to give them time to deal with their needs. In both these cases, the cycle continued, and roles have since been renegotiated again, with Aidan and Dennis currently being two of the most involved fathers interviewed.

Those assessed as less supportive tended to show signs of undermining each other's parenting, or, in the most extreme case, actually competing with the other parent for a child's affection. A lack of paternal involvement, normally coinciding with long working hours, often contributed to feelings amongst mothers of being unsupported, although long hours certainly did not mean a lack of support or involvement for every couple. Sarah Clark was one mother who felt unsupported:

Mrs C I do get frustrated with it, yeah. I think recently it's got worse, coz his job. He works for {company} and they made quite a few redundancies, and it looks like he's been covering people who have lost their jobs, and so he's not around as much. And I feel like, I do get frustrated, coz I think Julian's missed... Julian's suffering a bit because of it. I think a son needs his dad around, and I think Julian should be having more input with Michael. And I also think, I have to really push. […] I have to push him to do things with him.

Sarah had a lot of sympathy for her husband's situation, but had become very frustrated at having to do so much of the childrearing on her own, having to force Michael to get involved. At the same time, though, she recognises that she is not always supportive of his parenting:

Mrs C Michael gets annoyed with me, and says I undermine him. I think what happens sometimes is, like I'll use the example of now. Julian's in bed. Michael's talking to him, probably negotiating about going to sleep. I'll just go in there, and say "right, that's enough". And I totally over-ride, marginalise Michael, really, and I do that sometimes, without thinking. Probably because I'm at home all the time, because I'm with Julian all the time, I know how to deal with him. Whereas Michael's not around very often. He is not as confident, I'd say. Or, he doesn't assert himself as much.

This type of excusing of one's partner, "he's been covering people" and "I'm at home all the time", was very common among the mothers interviewed. Other researchers have found similar patterns, with mothers blaming themselves for their partner's weaknesses, resorting to arguments about fairness, trivialising things that annoy them, and making favourable comparisons between their own partner and those of their friends (Dryden, 1999). In assessing the level of support and communication, it is therefore important to look for a range of evidence. Collaboration is about fairness, but both partners have to agree what is fair, rather than simply falling into traditional roles with no negotiation. A single joke about an absent husband is not evidence for a lack of support, but several comments about having to parent on one's own implies this is an issue for the respondent.

4.6 Statistical analysis of Growing Up in Scotland

4.6.1 Ethics of GUS analysis

Ethical considerations for the secondary analysis of quantitative data are fairly limited. While it is possible to abuse the data, either through the deliberate misrepresentation of findings, or by making attempts to identify individuals within the dataset, for whatever purpose, this has not been done. All respondents to the survey have already given permission for their responses to be analysed for bona fide research purposes, without the need to be contacted.

The Growing Up in Scotland datasets were obtained from the UK Data Archive, and I have complied with their conditions of use. Data supplements were obtained from the data owners, ScotCen, containing more detailed information on income. These were not used in the final analyses, because of too many inconsistencies, which made the findings from them questionable. These data have been held securely and not passed on to other users. A number of errors have also been found in the publicly available data during the course of this project, and I have informed ScotCen of these issues.

4.6.2 Software

Data have been analysed using SPSS / PASW version 17. Because of the clustered nature of the Growing Up in Scotland sample, all weighted analyses have been conducted using the complex samples module. Diagnostic tests that are not available through this package have been conducted using the basic SPSS package.

4.6.3 Types of analysis

The analysis presented in chapters 6 and 7 consists of a series of crosstabulations, each of which is supported by a logistic regression model. The analysis presented in chapter 8 is more varied, including multiple linear regression models, logistic regression, and ordinal regression, as well as some more basic comparisons of means and frequency tables. The three types of regression model and their validity are discussed in appendix A4.

Other types of analysis were considered. Cluster and factor analysis are sometimes used in the operationalisation of variables. Attempts were made to operationalise the concept of collaboration using each of these methods, but were rejected on the grounds that the components derived did not represent the concept of collaboration as well as the operationalisation described in section 4.4. Multilevel modelling was considered, but not taken forwards. The clustered nature of the GUS sample makes it possible to consider distinct geographic areas, to which area-level variables identifying deprivation and urban or rural status can be assigned. However, these area level variables accounted for almost none of the variation in the data. Dynamic models of child behaviour were constructed, but have not been used in this thesis, as some of the key variables, particularly that for collaboration, were not available at multiple sweeps.

4.6.4 Reading the tables

In chapter 6, a logistic regression model is presented for the prediction of collaborative parenting using various socioeconomic and household characteristics. An extract from the table is provided below.

Extract from table 6.1

	B	Exp(B)	Sig.
Parents married			*.003*
Parents not married	-0.733	0.480	*.003*
Base category: parents married			
…			
Father's age at birth of study child			*.026*
Under 30	0.429	1.535	*.026*
30+			
…			
Sample size	*1,182*		
Nagelkerke R square	.130		

Growing Up in Scotland, child cohort, weighted, sweep 2
Dependent variable: collaboration

Each variable which forms part of the model is listed in the first column, together with the categories into which each case may fall. The last of these categories is the "base" category, against which others are to be compared. For each of the non-base categories, the value in the next column, headed "B", is the coefficient for that variable, as presented in the equation for logistic regression (see appendix A4). A negative value, as for parents not being married, means that compared to the base category (parents married), there is a decreased likelihood of the parents collaborating. A positive value means an increased likelihood of collaboration. The next column, headed "Exp(B)", provides the exponential of this coefficient. This is easier to interpret, as it represents the ratio of the odds of the dependent variable taking the value 1 (the parents being collaborative), when the independent variable is in the stated category, when all other factors remain constant, to the odds of the dependent variable taking the value 1 when the independent variable is not in that category. In the extract, the exponential of the coefficient for the parents not being married is 0.480. This means that the odds of the couple being collaborative if they are not married are less than half of the odds of the couple being collaborative if they are married, when all other factors remain constant. The inverse of this could also be

stated: the odds of them being collaborative if they are married are more than twice those of them being collaborated if they are not. The odds of a father aged under 30 being in a collaborative relationship are more than 50% greater than the odds of a father aged 30 or above being in a collaborative relationship, as Exp(B) equals 1.535. While the coefficients are presented as exact values, they are only estimates, based on the sample. In the interests of space, confidence intervals for these estimates have not been provided.

Each independent variable is also presented with a level of significance, in the column headed “Sig”. This is the statistical significance of the association between the variable and the dependent one, controlling for all other variables included in the model. It represents the likelihood that the association shown in the data could be due to sampling fluctuation. In general, only variables that are significant at the 0.05 level have been included in the final models, as presented. A level of significance is provided for the whole variable, as well as each category other than the base one. This provides a summary of the significance levels for each category of the variable. For binary variables, this is the same as the significance level of the non-base category. All categories of each independent variable have been included in the models, even when only some demonstrate significant associations with the dependent variable.

The value for Nagelkerke R square is intended to mimic that for Pearson R square, given in the linear regression models. The latter is a measure of the amount of variation in the dependent variable explained by the model. Nagelkerke R square, which takes values between 0 and 1, can be considered as a measure of the goodness of fit of the model, rather than an accurate description of the variation explained. It indicates the degree to which the model is an improvement on the predictive power of the null model. The sample size is also provided. This is the number of valid cases on which the model was based.

The remaining tables in chapters 6 and 7 are presented as conventional crosstabulations, with some additional columns. An extract from table 7.3 is presented below.

The column headed “Sig1” demonstrates whether there is a significant association between the variable listed in the first column, and the 4 category collaboration and support variable. A double asterisk means the association is significant at the 1% level, a single asterisk means significance at the 5% level, and a dash means not significant at the 5% level. The column headed “Sig2” shows the same information for associations with the binary collaboration variable. The column headed “Sig3” shows the same information after controls are introduced. The controls are all those variables included in table 6.1, which were shown to be significant predictors of collaboration. The level of significance is calculated by entering the named variable into the regression model shown in table 6.1. The columns headed “Exp2” and “Exp3” are the exponentials of the coefficients for the named variable in the model of collaboration when controls are not included (“Exp2”), and are included (“Exp3”).

Extract from table 7.3

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
"Difficult to ask for help or advice unless you know someone really well", sweep 4								**	*	-		
Agree	23.7%	28.9%	28.2%	37.1%	31.2%	*388*	c	**	*	-	0.71	0.79
Neither agree nor disagree	16.9%	16.1%	17.2%	18.6%	17.6%	*221*	c	**	*	-	0.71	0.84
Disagree	59.4%	55.0%	54.6%	44.3%	51.2%	*659*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,268*						
…												
Sample size	*175*	*123*	*473*	*497*	*1,268*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort

In the extract shown, against "agree", Exp2 is 0.71. This means that the odds of someone who agrees with the statement that "it is difficult to ask for help or advice unless you know someone really well" being collaborative are 29% below those of someone who does not agree being collaborative. The single asterisk in column Sig2 shows that this finding is significant at the 5% level. When controls are introduced, the exponentiated coefficient, Exp3, gets closer to 1. The value of 0.79 shows that the odds of someone who agrees with the statement being collaborative are only 21% below those of someone who does not agree being collaborative, once controls have been applied. The spurious part of the association has been explained away by associations with the control variables. With controls, the association is no longer statistically significant, as shown in column Sig3.

The letter "c" in the column preceding Sig1 means that the coefficients and significance calculations are based on cumulative percentages. This means that for the "agree" category, the base category is everyone who neither agrees nor disagrees, or who disagrees. For the next row, calculations are for everyone who agrees or neither agrees nor disagrees, compared to a base category of disagrees.

In chapter 8, a number of linear regression models are presented. An extract from table 8.6 (model 2) is included below.

Extract from table 8.6

	B	Sig.
Collaborative parenting		*.002*
Collaborative	-0.217	*.002*
Base category: non-collaborative		
…		
Sample size	*1,107*	
R square	.257	

Growing Up in Scotland, child cohort, weighted
Dependent variable: square root of SDQ total difficulties score, sweep 4

This can be read in much the same way as the logistic regression presented earlier. The figures reported include the coefficient for each variable. The dependent variable in this example is the square root of the "total difficulties score" (see chapter 8). As the coefficient ("B") for collaborative parenting is less than zero, collaboration is associated with a lower score (which means fewer emotional, social or behavioural difficulties are predicted to be reported by the mother). For linear regression models, there is no need to exponentiate the coefficients in order to interpret them. The value of the coefficient represents the change in the dependent variable that may be predicted by being in the non-base category compared to the base category. The value of -0.217 against collaborative parenting means that, should all other variables remain constant, the square root of the total difficulties score, is predicted to be lower by 0.217 points when the couple are classed as collaborative rather than non-collaborative. The level of significance is interpreted as for the logistic regression models.

The value of Pearson R indicates the proportion of total variation in the dependent variable that is explained by the model. In the extract from table 8.6, R square is equal to 0.257, indicating 25% of the total variation in the square root of the total difficulties score in the sample can be explained by the variables included in the model.

Chapter 8 also refers to a number of models included in the appendix. These include ordinal regression models. The figures presented should be interpreted in much the same way as for logistic regression. The differences are explained in appendix A4.

4.6.5 Sensitivity of the models

All attempts have been made to construct the most efficient models which explain the largest amount of the variation in the dependent variables, without violating any of the assumptions required for validation of the models. It should be noted, though,

that the models are all quite sensitive to the case selection, and to the choice of independent variables.

For example, the second linear regression model shown in table 8.5 would be different if the first 100 cases from the dataset were dropped. The frequency of visiting friends with young children would not demonstrate a significant association with the dependent variable, and would therefore have been excluded from the model, while the value of R square would increase slightly. If the same cases were dropped during the construction of the logistic regression model in table A9.1, which is used to predict a borderline or abnormal score on the Strengths and Difficulties Questionnaire (SDQ) emotional symptoms scale, the association with collaboration would become statistically significant ($p = 0.048$).

In general, those models with fewer cases, are more likely to be sensitive to this sort of change when cases are dropped. The variables which are affected tend to be those which were significant at the 5% level, but not at the 1% level.

All models have been tested in this way. Where there is change to the significance level of the variable of interest (the named variable in chapters 6 and 7, and the collaboration variable in chapter 8), across the 1% or 5% boundaries, when the first 100 cases are excluded, this has been mentioned in the footnotes to the table.

This sensitivity explains some of the differences between the ordinal and logistic regression models discussed in chapter 8 and presented in the annex. Both are meant to be modelling the same thing, scores on the subscales of the Strengths and Difficulties Questionnaire. The tests of parallel lines for the ordinal regressions indicate that the assumption of parallel odds is not violated in any case. One would therefore expect the same variables to be used in the models for above average scores, borderline or abnormal scores, and in the ordinal regression. This not being the case is partly a demonstration that the assumption of parallel odds does not fully hold, and partly a demonstration that the models are sensitive to the cases. None of the models is necessarily better than the others, but all add to the evidence for or

against collaboration being associated with a child's social, emotional and behavioural difficulties.

A better option for this type of model validation would have been to split the data in two, using the first half of the data to construct the model, and the second to validate it. This is not a feasible option, because of the relatively small size of the dataset.

4.7 Analysis of the qualitative data

The qualitative data for this thesis comprised mainly the transcripts for 40 interviews from 20 couples. Each interview was transcribed in full, bar any introductory and concluding remarks from me, which were fairly similar for every interview, and a few asides, such as interruptions from a third person, or totally off-topic comments about a cat, or similar. This provided something in excess of 300,000 words of data. In addition, a description was recorded of the dwelling and area, and the way each participant came across. These sometimes provided evidence of non-collaboration, such as the couple of times when only the person with whom I had made the arrangements knew I was coming. On other occasions they provided very useful context, such as the husband who wanted to be interviewed first, when informed the first would be the longer interview, and the concern he showed his wife afterwards, to check she had not been stressed by the whole process. Sometimes they reflected my own surprise, such as finding I was interviewing a same sex couple. I had deliberately not checked the details from the GUS data beforehand, as I had not at that point received permission from the participants to match the data. Consequently I had assumed that that pair of interviews, like all the others, would be with a heterosexual couple. This led to a review of the assumptions I had made regarding every one of the interviews, based on the address, the appearance of the house, or the time the couple asked me to come round. At the interviews, permissions were granted to match the interview data with the GUS data, giving rise to a lot of additional information on each case.

The analysis was framed by the desire to demonstrate what is meant by collaboration for different couples. This meant that interviews were perhaps more focused than less structured ones, and a list of topics to be covered in each interview had been used. This topic guide allowed a simple starting point for coding the data according to themes.

No specialist software was used for analysing the data, because of my belief that I could use spreadsheets for the same purpose. On reflection, this was a mistake. The analysis was conducted over a very intense three month period, during which I became very engrossed in the data. Each passage of each transcript was coded for its topic, and summaries of these were recorded in a spreadsheet, which referred back to the original passages in the transcripts. A number of new themes emerged as this process continued, and topics divided into sub-themes. While the use of a spreadsheet worked effectively for the purposes of operationalising the concept of collaboration, and in doing so, highlighted a number of interesting relationships, it did not provide for easy ways of interrogating the data. As I knew the data very well at the time, it was fairly straightforward to recall where to find other passages relating to new themes or questions, and a search for relevant words could be made to ensure completeness. However, over the course of time, my recall of the interviews is no longer as clear, and use of specialist software would have allowed a coding process which covered a greater range of topics, and hence improved search functionality, which would have made the data easier to re-use in the future.

Demonstrating some degree of consistency between the concept of collaboration discussed using the quantitative data, and the concept illuminated in the interviews was done by quantifying the interview data. In order to demonstrate definite patterns, couples were classified on a three-point scale on a number of these themes. This allowed a clear summary of every case, for comparison with the GUS data. Such a quantification of the interview data clearly leads to a lot of information being overlooked. However, as the focus was on demonstrating consistency, in order to allow the interview data to provide understanding to the quantitative findings, information which neither confirmed nor denied this could be considered irrelevant.

Beyond this process, the data was examined in a more typical qualitative way. The data were opened up by the process of looking for interesting passages, and reflecting on why they were of interest. Of course, what was determined as interesting is a reflection of my own expectations and biases. Particular focus was given to similarities and contradictions within responses given by partners, and then more widely, to similarities and differences between separate couples. Thus, the narrow coding, which had been used for operationalising the concept of collaboration, was expanded.

As with any grounded research, theories were allowed to develop from the data. While the research questions have been presented so far as if they have emerged from theory, the truth is that to some extent they have been influenced by the themes that have emerged from the interview data. The first two questions are rooted in the interview data. As relationships between collaboration, social support and leisure time were uncovered in the qualitative data during the operationalisation process, further questions were asked, which form the basis of the qualitative analysis in chapter 5 and the quantitative analysis in chapter 6.

The understanding of the data is underpinned by flexible coding, which links cases by emerging themes. Throughout the analysis, cases were returned to multiple times, to re-code, to compare, to re-examine theories, and to ensure coding was consistent. As the analysis progressed, a typology of collaborative parenting emerged. Again, cases were re-examined, to ensure this typology was an accurate reflection of the data.

The process of analysing the interview transcripts has been perhaps more personal than analysing the GUS data. Less reliance on a computer to highlight what is important has necessitated more of my own input into the outcomes of the analysis, although it is recognised that the quantitative analysis still reflects my own interests and decisions, in what I have chosen to analyse, and how I have operationalised concepts. The analysis of the interviews has been systematic, and checks have been made throughout the whole process, constantly referring back to the original data, to

validate the findings. See Richards (2005) for a further discussion of the methods of analysing qualitative data.

4.8 Conclusion

In this chapter I have described my reasons for choosing a mixed methods approach, and described the methods of data collection and analysis. Particular emphasis was placed on the operationalisation of collaborative parenting in both the quantitative and qualitative data. A comparison of these in the next chapter will confirm that both are measuring the same concept. The high degree of consistency between the two approaches allows the integration of the two sets of data. It also suggests that parents who are collaborating when the child is aged just under 4 years of age (sweep 2 of the GUS data, from which the collaboration variable is created) are also likely to be collaborating four years later. This allows one to treat the variable as constant over all four sweeps of GUS data, and therefore not be concerned about the direction of causality in the analysis.

Validation of the statistical modelling processes has been discussed briefly, and expanded upon in appendix A4. Other measures of assessing the quality of the quantitative aspect of this project can be dealt with very quickly. *Reliability* is mainly of concern in the data collection phase, and so has to be assumed when using secondary analysis. Reliability in the construction of the collaboration variable was rejected as a measure, as the process of inverse operationalisation avoids the need to variables with a high degree of internal consistency. Findings are easily *replicable*, as all methods of analysis and derivation of variables have been explicitly stated. The nature of the sample makes the findings *generalizable* to all co-resident parents of children the same age as those in the GUS sample in Scotland.

There is less agreement on criteria for assessing qualitative research (Bryman, Becker and Sempik, 2008). A commonly used set of criteria are those defined by

Lincoln and Guba (1985). *Credibility* could certainly be claimed in terms of the believability of the qualitative findings, but the type of member checks they describe have not been carried out. *Transferability* is not being claimed, although the audit trail could be used to demonstrate some degree of applicability of the findings to a wider group. All of the methods have been described in this chapter, and full transcriptions of interviews will be made available via the data archive for others to scrutinise, hence *dependability* is not an issue. I have tried to be reflexive in considering the data and findings, and my comments throughout this and the next chapter should demonstrate the findings are *confirmable*, and free from my own personal biases.

Not only should the methods be evaluated separately, but in a mixed methods study, it is important to consider how well they combine. Bryman, Becker and Sempik (2008) identify four criteria specific to mixed methods. The methods should be *relevant to the research questions*, which will become clear over the next four chapters. This chapter has been quite explicit about the processes of conducting the research, and hence made them *transparent*. The findings are *integrated* to the extent I feel appropriate, given the choice of methods to answer each research question. A *rationale* for using mixed methods has been provided. The reader of the remaining chapters should be able to judge whether the methods as described have produced worthwhile research.

Chapter 5 – Collaborative process and social support

"If you're in love, you've got a cracking relationship, it follows down. I think it's like the same with any organisation, if you've got a good management at the top that understands the whole system, the whole cheese, you say, then everything's good. If you've got a management that's cracked, or there's a rupture there, then it's going to run right through your employees. So, I think it's the same thing, that if you're solid at the top, it runs through the whole family."

Dennis Turnbull[9]

5.1 Introduction

This chapter is devoted to findings from the semi-structured interviews that were conducted with parents, approximately two years after the final collection of data from the Growing Up in Scotland study.

The primary purpose of conducting the interviews was to provide a demonstration of what is meant by collaboration in varying circumstances. The intention in the subsequent chapters is that one can refer back to these descriptions to gain greater insight into the concept being discussed using the quantitative data. Evidence to

[9] All names, as well as certain other details, which may identify individuals, have been changed in the interest of confidentiality

support the claim that the concepts being discussed, using the qualitative and quantitative data, are the same, will be provided in the first part of this chapter, although this should not be viewed as a formal validation of the operationalisations. Section 5.2 is intended to illustrate the cycle of collaboration that was introduced as a theoretical model in chapter 3. In section 5.3, the two constructs of communication between partners about their children, and support of one's partner in their parenting, the operationalisations of which were also discussed in chapter 4, are examined. These constructs play a major role in the cycle of collaboration, and are used as a comparison for the collaboration variable operationalised in the GUS data.

A secondary purpose of the interviews was to act as a stimulus for the generation of questions and ideas in relation to the concept of collaboration. One such notion, which will be touched upon briefly in the findings, is that collaborative couples appear to remain collaborative over a number of years. This is both problematic and helpful in relation to the quantitative analysis in the chapters to come. It makes longitudinal analysis of the GUS data very difficult, but at the same time, allows one to conduct analysis without getting overly concerned with the direction of causality. This fits in with lifecourse theories of the family, given that the period covered between the first GUS data collection, when the children were just short of 3 years of age, and my interviews, when the children were 7 or 8, is generally considered to be the same stage of family development (Day, 2010; Rodgers and White, 1993).

The second half of this chapter will introduce some further concepts which emerged from examination of the interview data, rather than from theory. The effect of social support on collaboration within the home was noted on a first reading of the transcripts. A consideration of this from a theoretical perspective was included in chapter 3, leading to the research question:

RQ1: *How does informal social support from outside the immediate family affect the process of collaboration between two parents?*

This will be addressed in section 5.4. Given the size of the sample, findings should only be considered indicative of what may happen in other households. In section 5.5, the interviews will be used to bring together the concepts of collaboration and support into a typology of collaborative couples, which will be considered further in chapters 6 and 7.

5.2 The cycle of collaboration

The process of collaboration, as described in chapter 3, actually consists of multiple cycles. At the lower level (the information level), couples receive and process information at the formation and negotiation stages respectively. This leads to a decision or action at the performance stage, which affects the couple's environment (the child, extended family, the child's school, etc.). The environment provides a reaction, which feeds back into the lower level cycle regarding that information, allowing reflection upon the performance at the evaluation stage. Depending on the evaluation, the cycle may continue.

As I shall discuss later (section 5.2.5), it is very difficult to differentiate between couples who act collaboratively and those who do not on this level. It is easy to find examples of collaboration when dealing with specific matters. All the couples interviewed were able to talk about ways in which they have supported each other in the disciplining of a child, or came to an agreement over the choice of school, irrespective of whether their relationship can be deemed collaborative. In fact, information is often dealt with by just one parent, either because of a lack of collaboration, or because of an agreement over roles that allows the delegation of decisions. At the lower level, these processes look the same.

At the higher level (the relationship level), couples negotiate, perform and evaluate their own parenting roles and rules. Here, it is easier to see the difference between parents who, for example, simply support a specific disciplinary decision, and those

who have discussed what they wish to achieve through discipline, and how they plan to achieve it. The next four sections are concerned with the higher level.

5.2.1 (Re)formation

Every relationship begins at the formation stage, but the formation of relationships is not the focus of this study. Of greater relevance is the re-formation stage, where the structure of a relationship is re-worked, as part of the cycle of collaboration. This generally takes place following a significant event or combination of events. It may be that the structure of the household has changed, for example, following the birth of a second child, which leads to questioning of the roles carried out by each partner. Several couples in the study changed work patterns following the birth of a second child, generally becoming more traditional in the division of childcare and paid employment. In a number of cases, stressful events, both internal and external to the relationship, such as the death of a parent, or a breakdown in communication also led to the re-evaluation of a relationship and the subsequent re-structuring. Three of the couples interviewed admitted reaching stages where the relationship had begun to breakdown and considerable effort was required to re-form the relationship into a workable collaboration. Sandy Robertson described a period when her son was young:

Ms R Well I think at different times we've had our ups and downs and we had a period of time when we did some counselling as well. And I think that helped us communicate better than… it helped me in particular be more aware of better ways of communicating, I suppose. So I do think, I do think in general we're less likely to fall into arguments that are kind of pointless arguments in a way. […]

SH When you recognised the need to have the counselling, was that one or other of you that recognised that need?

Ms R That was both of us, yeah.

SH So how did you come to that decision?

Ms R Well, I think it was either that or we wouldn't have stayed together.

I will look further at this group of three couples towards the end of this chapter (section 5.5.3). It should be noted, however, that none of these couples have resolved their issues entirely. They have each taken steps which have allowed them to re-start the collaboration process, and this has allowed them to improve their relationships, but, at the time of the interviews, they had not yet reached the stage of continued performance with regard to working together for the benefit of their child, which can be seen in the more collaborative couples.

5.2.2 (Re)negotiation

Theory suggests that at the negotiation stage of the collaboration cycle, a common understanding is developed through the sharing of information, ideas and visions. At this stage, rules are agreed and goals are set. Again, we can see this negotiation stage occur in many of the interviews, but particularly between the more collaborative couples. Here, Alan Ogilvie spoke about a change in working patterns he had been considering:

Mr O I thought about it, funnily enough, a couple of years back, when I thought it would be nicer to have more time. And I thought, well, it would be nice to work four days out of five. Why not? And we seriously discussed the possibility of me doing that. It would have meant a drop in salary, and it would have meant that my employers... not that Moira would go full-time, but just that I would have more time off, and we'd all benefit from that. But at that time, I was probably actually working longer hours. I would go in, not really early, but I would go in early-ish, and I would probably work on for an extra hour at night, or something like that. And I thought, what's the point in trying to work four days out of five, when at the moment I don't even work 9 to 5. So, I thought, why don't I make an effort to work 9 to 5. And actually, nowadays, albeit there are some days I go in earlier, sometimes, inevitably, there are things that need to be done, and occasionally I have to bring work home, I'm very close to working 9 to 5 now. I just work more efficiently. And that's it, that's a benefit, because I do come home earlier as a general rule.

Alan and Moira share their ideas and visions, and come to an understanding of what it is that they are trying to achieve by Alan working a four day week, namely to

benefit the family by allowing Alan to spend more time at home. However, in talking about this, they come to an alternative solution, which they feel suits the whole family, and the expectations of how Alan is to conduct his paid employment are set out.

Negotiation does not work in every case, though. Andrew Dewar, who considered his own parenting to be more constructive than his wife's, was asked whether he ever tried to influence his wife to act with the children in a manner more similar to his own. His response was:

> Mr D All the time, all the time. Well, when I say all the time, in the past. I would do so less now because there's no point. Yes [Laughs]. You come to a certain point in time where you realise that the effort to try to change someone else's perspective isn't worth it, because they're not going to change, or they say they will, they listen to you, they see your point of view, they agree with you sometimes, but they just can't do it, because it's not them.

While certain aspects of the Dewars' relationship worked, Andrew appeared to have given up on negotiating, because the negotiations rarely led to effective performance. While his criticisms of his wife were perhaps more harsh than in any of the other pairs of interviews, this failure to negotiate a change in performance was not unusual among the less collaborative couples. Several individuals felt that they were not easily influenced, and so, when challenged by their partners about how they had dealt with a particular situation involving their children, said they would not act differently should the situation arise again.

5.2.3 Performance

The performance stage of the cycle of collaboration is where each partner takes on their roles and responsibilities and performs their agreed tasks. Actions can be carried out by individual parents, but can be considered collaborative by virtue of

sticking to agreed patterns of behaviour. Low level decisions are often delegated to individual parents based on their expertise or interest.

Such performance, however, is not unique to collaborative parenting. Even the least collaborative of parents divide tasks and make delegated decisions. What makes collaborative performance different is its position between the stages of negotiation and evaluation. As will be seen in chapter 8, performance that is not based upon agreement, and is not assessed, is less likely to be effective.

In 16 of the 20 couples interviewed, in terms of hours in paid employment, it was quite clear which partner took on the role of main breadwinner, and which the role of main carer. By virtue of these structures, one can immediately see a delegation of responsibilities: the partner at work, is contributing to the economic good of the family, while the partner at home is ensuring the safety and development of the children. But even in the four couples where both partners work full-time or near full-time, there is a division of tasks. Children get taken to school, picked up from brownies, fed, bathed and read stories. In most cases, it is the same parent who performs the same task at the same time, on the same day of the week, week in, week out. Parents are routinised, just as much as their children. Alan Ogilvie, again:

> Mr O I used to go to all their swimming lessons on a Sunday morning, right from when Dylan was pre-school, and that was at the Commonwealth Pool, and it was a social event, where I met, you know, I met up with the same parents that took their kids, right through from pre-school, or whatever. So, when they closed the Commonwealth a year or so ago, that was a huge chunk away from me, because it was... I needed therapy, because it was a routine for me, where I was taking the kids out, we did that every Sunday morning, and I also met up with these other parents, and it was a social thing, with both the kids and with these other parents. So, I miss that, actually, to be honest.

While such day-to-day routines exist for all the parents interviewed, what distinguished the collaborative from the less collaborative parents is the way they dealt with unpredictable situations, such as poor behaviour from a child. Joint action was very rare. In many cases, this was because only one parent was present at the time the situation arose. But even when more than one parent was present, it was

common for only one parent to take action. However, among the more collaborative couples, it made little difference which parent dealt with the situation, as the child knew they would get a similar response from both. Among the less collaborative couples, which parent reacted first normally determined the severity of any punishment. This had a number of consequences. Firstly, the children received inconsistent messages as to what is acceptable behaviour. Secondly, if children wanted something, they learned which parent was more likely to give it to them, and so made sure they asked that parent first. And thirdly, one parent often ended up doing the majority of the disciplining, because they were the one with the lower tolerance level of poor behaviour, and hence the one who always reacted first. Stewart Peterson was one of those who felt he did much more of the disciplining, despite spending a lot less time with the children than his wife.

Mr P It seems to be me that does all the disciplining [laughs], or the majority of it. [...] Because Alison's soft [laughs]. I think she's just too nice. I think, after, even when she does do it, and she sees them crying, she'll say "it breaks my heart to see them cry", and I'm "but he's been bad, you've got to give him a row".

Most of the parents, collaborative or not, tried to minimise inconsistencies and stop children playing them off against each other by backing each other up. When Stewart grounded his oldest son for three weeks, it was his wife, Alison, who had to enforce the punishment, because she was the one at home every day:

Mrs P And the hardest one, he got grounded for three weeks, and it's hard to keep him in for three weeks. That was a nightmare, but we stuck to it. The amount of times I could have said to him "get out of my house! You're doing my head in!" But no, we kept him in for the three weeks. He learned his lesson.

Here we have clear evidence of supportive behaviour, one parent backing up the other's punishment. However, had Mrs Peterson been the one who dealt with the situation, the punishment would most likely have been different. There was no discussion as to what was an appropriate punishment either before or after the situation arose. Alison Peterson, again:

Mrs P We don't sit down together, I'll say, like, "Ethan's grounded for this long, this is what happened", and he just says "right, okay". So, whoever's dealing with it will dole out the punishment, and then we just tell each other.

Intervention from a second parent was rare, but occasionally occurred. The more collaborative couples tended to be more prepared to challenge their partner's parenting. In such situations, a higher level of control kicks in. Rather than simply backing up their partner, the second parent is able to call upon higher level rules and aims, such as treating the children justly or helping them to learn about right and wrong. Alan Ogilvie:

Mr O Sometimes if you're standing back from the direct dialogue between parent and child, it's sometimes easier to say "actually, I think that's a bit hard on them" [...] I do know that on occasions I've said to the kids "look, you go to your room", or "you go and get on with something, mummy and daddy will talk about this, and we'll talk to you about it later". [...] So, I think we would do that rather than backing up and changing minds, generally speaking. But we wouldn't generally have [...] the discussion in front of the children so that they would see us, you know, with different views on whatever the situation would be. I think we would tend to have the discussion outwith the children, and then go in with a united front one way or the other to whichever child it was.

Mr Ogilvie manages to ensure the higher level rule is applied, and the children receive a considered punishment, rather than one handed out in a possibly heated situation. At the same time, he does not undermine his wife, and the children only see a united front.

More common than such direct intervention during a situation is discussion after the event, which allows the parents to reflect upon what has occurred, and adjust the way they react the next time a similar event occurs.

5.2.4 Evaluation

At the evaluation stage of the collaborative process, checks are made against higher level objectives, such as the development of the child and the happiness of each family member. The couple can then assess whether things need to change. Examples of this have already been provided, such as when Sandy Robertson and her partner recognised the communication problems they were having, and the need for counselling. In an effective collaboration, things do not need to come to a head, though, in order for them to be evaluated. Many couples spoke about how they felt their parenting was working on a regular basis, possibly beyond the point of what is necessary. Fiona Urquhart said that she and her husband spoke most nights, once the children were in bed, about whether they were doing the right things for their children:

Mrs U Douglas seems to be very busy, just now. And it's trying to determine what's the right level to make it. [...] On a Monday we don't do anything. On a Tuesday he has pipe band. On a Wednesday he's going to football. [...] I find to get that even balance that's so hard. Is it too much, is it not too much? Which is it?

and

Mrs U So, it's like "Are we teaching them the right values?", "Have they got manners?", "Have they got this, have they got that?" And that constantly will always go on. I don't think that will ever stop.

To other couples, Fiona Urquhart's constant concerns may seem excessive, but the communication between Fiona and her husband allows a reality check, not just on whether they are doing the right thing for their children, but also whether it is reasonable for Fiona to constantly raise such concerns. Many of the other couples in the study asked fewer questions, but still assessed their parenting in terms of outcomes for the child, for example, Stewart Peterson:

Mr P "The boys are happy, so we must be doing something right."

Evaluation at this higher level is perhaps more subtle than at the lower level. Nearly all of the couples interviewed would discuss situations that had arisen during the course of the day, and reflect upon whether they had acted in the right way: had they set the right level of punishment? or, were they right to let the children stay up late for a party? But reflection on the bigger picture is perhaps harder to put into words for some couples, because they do not have the same clear ideas around objectives for their children. Most couples spoke about wanting their children to be happy and to do their best at school, but a number of the more collaborative couples also spoke about specific values they would like to instil in their children. Rather than following some broad notion of where they were heading, they appeared to have a more definite understanding as to what they were trying to achieve as parents. Armed with more explicit objectives, they were in a better situation to provide a more explicit evaluation.

5.2.5 The lower level cycle of collaboration

As has already been said, all the couples interviewed successfully went through the lower level cycle of collaboration, in response to specific pieces of information or stimuli, such as a sick child. Where collaboration was working effectively at the higher level, such that rules and aims had been negotiated and both partners were able to act out their agreed roles, the lower level cycle tended to progress quite smoothly. Information would reach one parent, and, as communication tended to be timely and easy, it would be shared with the other. Roles often did not have to be negotiated, as there was already a plan in place for dealing with such situations. The parents perform as expected: the agreed parent takes time off work, for example, to stay home with the child. The situation is then evaluated, and the parents re-negotiate the management of an extended period of illness.

In many ways, the less collaborative couples look no different from the collaborative ones at this level. Information still comes in and has to be processed. Roles have

already been agreed: the mother will take time off work, because she says it is easier for her to do so, or because she wants to make sure her child is alright; or grandparents will be called in. This is not always the case, but on the whole, when both partners are at work, collaborative fathers seem more able or more willing to negotiate with their employers for time off than non-collaborative ones, yet it is still the mothers who are more likely to take time off.

Even at the evaluation stage, there is no real evidence of more discussion about what occurred among the more collaborative parents. This may seem counter-intuitive, but because the higher level is working better for the more collaborative parents, there is less disagreement about how to deal with specific situations, because there is already agreement on more general ideas about parenting. Thus, evaluation can draw on common ideas for how things may need to be done differently in future, rather than arguing from different viewpoints, and so may reach a conclusion more easily.

5.3 Comparison of quantitative and qualitative conceptualisations of collaboration

Two concepts were chosen to represent collaboration in the qualitative data: communication about the children, and support for each other as parents. These do not easily map onto the four elements of the cycle, as attempts to use a more direct mapping led to confusion, where frequent negotiation and evaluation at the lower level actually masked a lack of movement over roles and rules at the higher level. Evidence for progress through both levels of the cycle feeds into the two concepts. Other concepts, which were used in the definition of collaboration provided in chapter 3, such as taking joint responsibility for the children, and having a common understanding, also form part of the assessment of communication and support. Further details of the operationalisation of these concepts are included in chapter 4.

Nine couples were assessed as good communicators with respect to their children, three as weak communicators, and seven somewhere in between. One of the transcripts, that of the first pair of interviews to take place, provided insufficient evidence to assess the quality of communication. Ten of the couples interviewed were assessed as having a relationship in which they supported each other as parents, while four were assessed as being unsupportive, and four as somewhere in between. Two of the interview transcripts failed to provide enough clear evidence to make an assessment.

Table 5.1 summarises the assessments of communication about the children and having a relationship that provides support for each other as parents, and how these combine to form an overall assessment of collaboration. Also included is the calculation of collaboration from the Growing Up in Scotland data. The surnames given to couples for the purpose of anonymity, when listed alphabetically, are in the order in which the interviews were conducted. The table has been re-ordered to make patterns more obvious.

It is very clear from this table that those couples who offered each other the most support in their parenting also communicated about their children best. These couples were assessed as collaborative on the basis of the interviews. The same couples also tended to be the ones assessed using the GUS data as collaborative. Only one couple, the Sutherlands, were assessed as being supportive of each other's parenting, while sometimes being poor communicators. Both of the Sutherlands worked full-time, and tended to be very functional in their communication, due to a lack of time. Matters such as the behaviour of the children were often discussed with the children, at the dinner table, rather than being discussed by the parents on their own. On occasions, things did not get done, because the Sutherlands had not got round to agreeing which one of them should take the responsibility. On the other hand, both parents were very supportive of each other, so the GUS assessment of being collaborative seemed to fit.

Table 5.1 Comparison of quantitative and qualitative assessments of collaboration

Pseudonym (surname)	GUS assessment	Supportiveness of relationship	Quality of communication	Interview assessment
Mr and Mrs Nazir	Non-collaborative	Often unsupportive	Often poor	Non-collaborative
Mr and Mrs Dewar	Non-collaborative	Often unsupportive	Often poor	Non-collaborative
Mr and Mrs Clark	Non-collaborative	Often unsupportive	Often poor	Non-collaborative
Mr Kinnear and Miss Kemp	Non-collaborative		Sometimes poor	Non-collaborative
Mr and Mrs Ingram	Non-collaborative	Often unsupportive	Sometimes poor	Non-collaborative
Mr and Mrs Finlay	Non-collaborative	Occasionally unsupportive	Sometimes poor	Non-collaborative
Mr Gill and Miss Gordon	Non-collaborative	Occasionally unsupportive	Sometimes poor	Non-collaborative
Mr and Mrs Peterson	Non-collaborative	Occasionally unsupportive	Sometimes poor	Non-collaborative
Ms Quinn and Ms Robertson	Non-collaborative	Occasionally unsupportive	Sometimes poor	Non-collaborative
Mr and Mrs Ogilvie	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Ashcroft	Collaborative	Supportive		Collaborative
Mr and Mrs Urquhart	Collaborative		Good	Collaborative
Mr and Mrs Sutherland	Collaborative	Supportive	Sometimes poor	Collaborative
Mr and Mrs Jackson	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Barnes	Non-collaborative	Supportive	Good	Collaborative
Mr and Mrs MacAllister	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Evans	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Henderson	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Laing	Collaborative	Supportive	Good	Collaborative
Mr and Mrs Turnbull	Collaborative	Supportive	Good	Collaborative

All but one of the couples assessed as non-collaborative in the GUS data were at least occasionally unsupportive of each other as parents, and sometimes poor in their communication about the children. The one couple who appear to be misclassified, Yvette and Donald Barnes, were quite an unusual case. Donald was the main carer. Yvette worked long hours, and her involvement with their children was often by proxy. The Growing Up in Scotland data highlighted some relationship issues which were not evident in the interview. It is possible that during my interviews with the couple, they were reluctant to discuss these issues, and painted a picture of themselves which demonstrated greater collaboration than actually existed. It is also possible that the Barnes have changed the way in which they collaborate, and my probing failed to pick up on this. Alternatively, it may be that this couple demonstrate a weakness in the operationalisation, failing to correctly classify unusual cases.

The assessments based on the interviews match those based on the GUS data in 19 of the 20 cases. It seems reasonable to claim that the two operationalisations are measuring the same concept, and therefore the interview data can be used to illustrate what is meant by collaboration in the quantitative findings.

The interviews provided a history of parenting for each of the couples, with parents being asked to discuss the times at which it was hardest to work together as parents. Where any issues were raised, this nearly always occurred in the infant or toddler years. From the time when the child was aged around three, to the time of the interview, around five years later, each of the couples appeared to be in a stable pattern of the way in which they worked together. While this pattern was on occasion interrupted by external stressors, it always returned to the same pattern of collaboration or non-collaboration. Three of the couples had made considerable efforts to change their patterns for the better, and these will be discussed in section 5.5.3. The others demonstrated a level of consistency over time, which makes one think that, during this stage of development, when the child is aged between 3 and 8, patterns of collaboration tend to be fixed. Hence, in the subsequent chapters, the collaboration variable will be treated as if it is constant over this period.

5.4 The effect of informal social support on collaboration within the household

5.4.1 The availability and use of social support

The availability and use of informal social support are two quite distinct concepts. GUS asks about the former, in terms of the ease with which one could leave a child with someone else, or the number of close relationships the respondent has outside of the household, but not the latter (except in relation to grandparents). In the next two chapters, availability will be used as a proxy for use, as support can only be utilised if it is readily available. The interview transcripts, however, are able to provide more information about the actual use of support in specific cases.

Certain individuals do not use the support that may be available within the local community. Marian Turnbull, for example:

> Mrs T It's just, they're so precious to me, I would find it difficult to leave them with anybody. I don't trust, generally don't trust people with my children. I couldn't, you know. […] I would probably have given up my job, to be quite honest, before I would have left [Ross] with somebody. Or I would have got a night shift job, or something. I've been lucky so far, because none of the kids have had to go to a childminder, apart from Ross. The two girls, I always worked my shift around the girls, so I was always home for them. Take them to school, pick them up, then I would go to work at night. So I've been really lucky so far.

Marian and her husband both work full-time, and moved to Edinburgh within the last 10 years. While Marian presents the unwillingness to allow anyone else to look after her children as a choice on her part, the reality may be that she has not integrated into the community to the extent she has found people she can trust to help out. On the other hand, the Turnbulls do pay a childminder (an old friend, and the one person in Edinburgh Marian does feel she can rely on), and occasionally get help from relatives living outside the city, who are trusted to babysit.

Other parents actively seek out help, preferring reciprocal or paid arrangements, over free childcare from their own parents. Eve Finlay:

Mrs F On the one hand I'm tempted to say that, in a way, it might have been easier at times if we were closer to our extended family, and they could have been there to help out a little bit, and that is an issue with us living in Edinburgh and our family all being down south. Then equally, one of the tensions for me would be when we lived down south, my mum was nearby, and she did help out with the kids, and it really didn't work, and it caused more conflict. […] I guess one of the things that's kept me going, and that works for me, is either being prepared to pay for the childcare I'm happy with, and not grump about money, and think wouldn't it be nice if somebody like a grandparent would be prepared to do that for free for me. Because you find the childcare, and once you've paid for it, you walk away without guilt. And also networking with other parents, and having mutual reciprocal relationships where you support each other.

Eve found it was much better for all concerned when her mother was allowed to enjoy the children, rather than being expected to provide a childminding service. What worked better for her was either paying someone to look after the children, where she could set the rules, or making arrangements with other parents, whose status as parents of children a similar age, meant that they could be trusted. Eve had deliberately set out to build a network of people she could call on:

Mrs F I got involved with playgroup committees and stuff. So I guess, working it that way, you meet other people, and you begin to network and negotiate with people. […] I like it to be "this week I've done this for you, next week you're going to do it for me". So I guess it's just kind of through those networks that I've linked up and done it. And I guess because we live so far away from family, you do need that back up plan. You do need someone who, if you get stuck in a traffic jam, you can phone up and say "I'm not going to make it, please could you go and pick the kids up from after school club for me". You can't get by without that.

Physically looking after children was the main form of support mentioned by most parents, picking them up after school, babysitting, or taking them overnight, but not the only one. Some parents mentioned financial support, others the provision of information, and a comparison against which to assess child behaviour or one's own rules.

5.4.2 Factors associated with the use of support networks

Just as attempts were made to quantify the interview data in terms of supportive parenting and effective communication about the children, attempts were also made to quantify the data in respect of a number of other concepts.

Firstly, the size and utility of the support network was assessed. This was coded as being either large and well used (2), or small (0), following the examples provided in the previous section. A third code was used for networks which fell somewhere in between, either by virtue of being large but rarely used, or being middling in size (1). Where a lot of support was provided by one person (generally, the mother of one of the parent's), but there was little evidence of other support, this was coded as being small. Nine couples were thus assessed as having large networks, four middling, and seven small.

Two constructs were identified within the interview data as being indicative of the way in which support networks affect the process of collaboration, with two others being indicative of the problems arising when one has neither support from outside the household, nor support from within. Each of these were also coded on a three point scale. The constructs are:

- Reactive or planned parenting (0 being more reactive, and 2 more planned)
- Perception of the amount of available time (0 being limited, 1 limited, but content with the amount, and 2 sufficient)
- Level of stress (0 being very little, and 2 major or multiple stresses)
- Level of content with current situation (0 being not content and 2 being fairly content)

"Reactive parenting" refers to the type of parenting that occurs in reaction to a child's behaviour. Examples include punishments for poor behaviour, a lack of routine around bedtime or mealtimes, and the introduction of rules in reaction to problem situations. This is in contrast to "planned parenting", when actions and

decisions are taken in anticipation of what is to come. This could be exemplified by rewarding positive behaviour through star charts, being aware of how children are likely to develop, and planning for such changes, and structuring time for the children.

Some individuals felt that there was sufficient time to do all they wanted to do. They spent as much time at work as each wanted, they had enough time as a couple, enough time on their own or with friends, and enough time with the children. Other parents felt there was a shortage in at least one of these areas, and felt they were missing out. A third group recognised they were short of time in one of these areas, but managed to rationalise this. They felt they had made actively made choices about how their time was divided, and were content that those choices suited them at present.

A wide range of stressors were identified by the interviewees: finances, work, exams, children's behaviour, dealing with builders, taking on home improvement projects, illness or death within the extended family, the relationship with one's partner, tiredness, or a lack of time. Stress occurred in response to these, and was therefore often short-lived. The level of stress recorded summarised the experiences of the parents over a few years, as described in response to direct questions on the subject. The stressor or stressors were not considered relevant, only the reactions to them.

The level of content with the current situation was a record of the impression given off by couples as to how happy they were with their present lifestyle. No one directly stated that they were unhappy, but there were a number of comments regarding frustration over employment situations, especially partners' employment. There were also frustrations over differences in expectations of parenting, a shortage of time with the children, a lack of collaboration, over money, and over children's behaviour. The discontent was often expressed as wanting to change the situation, but not knowing how to do so.

While parents were interviewed separately, and may have given different impressions regarding these constructs, the recorded responses were for the couple. If either parent felt a lack of time, high stress, or discontent, this is what was recorded for the couple. Further illustrations of the type of response that led to decisions regarding the coding of these constructs are included in sections 5.5.1 to 5.5.4.

The same comments can be made as when discussing the operationalisation of communication and support (section 4.5), that the values assigned to each couple represent quite a crude and subjective summation of sometimes lengthy interviews. Table 5.2 summarises the findings.

One association immediately jumps out when looking at this table: all of the couples coded as either collaborative or having a large support network are content with their current situation, while none of the couples coded as non-collaborative and not having a large support network are. This means that for this sample, parenting support from outside the household reduces the need for collaboration with one's partner in ensuring contentedness with one's current situation.

Table 5.2 Summary of interview data with respect to 5 key concepts

Pseudonym (surname)	Original Typology	Size of support network	Reactive or planned parenting	Perception of the amount of available time	Level of stress	Level of content with current situation
Mr and Mrs Nazir	Non-collaborative	0	0	0	2	1
Mr and Mrs Dewar	Non-collaborative	0	0	0	1	1
Mr and Mrs Clark	Non-collaborative	0	-	0	2	0
Mr Kinnear and Miss Kemp	Non-collaborative	0	1	0	2	0
Mr and Mrs Ingram	Non-collaborative	0	0	2	1	1
Mr and Mrs Finlay	Non-collaborative	2	1	0	0	2
Mr Gill and Miss Gordon	Non-collaborative	2	0	0	1	2
Mr and Mrs Peterson	Non-collaborative	1	0	0	2	1
Ms Quinn and Ms Robertson	Non-collaborative	2	1	0	1	2
Mr and Mrs Ogilvie	Collaborative	2	0	1	0	2
Mr and Mrs Ashcroft	Collaborative	2	0	2	0	2
Mr and Mrs Urquhart	Collaborative	2	0	2	1	2
Mr and Mrs Sutherland	Collaborative	2	1	2	1	2
Mr and Mrs Jackson	Collaborative	2	1	2	0	2
Mr and Mrs Barnes	Non-collaborative	2	2	2	0	2
Mr and Mrs MacAllister	Collaborative	1	1	2	1	2
Mr and Mrs Evans	Collaborative	1	2	1	0	2
Mr and Mrs Henderson	Collaborative	0	2	1	2	2
Mr and Mrs Laing	Collaborative	1	2	1	1	2
Mr and Mrs Turnbull	Collaborative	0	2	1	1	2
	Key:	0 Small 1 Middling or rarely used 2 Large	0 More reactive 1 Mixed 2 More planned - Insufficient evidence	0 Limited 1 Limited but content 2 Sufficient	0 Little 1 Some 2 Major or multiple	0 Not content 1 Accepting 2 Largely content

The two couples who are least content with their current situation, are both non-collaborative, with only a small support network. In addition, they are both highly stressed. In both cases, a major cause of this stress is the impact the father's work has on the family, reducing the time he spends with the children, and the time spent together as a couple. A third couple, the Nazirs, are also assessed as being non-collaborative, having a small support network, and being highly stressed, but do not show as much discontent with the situation. This may be for cultural reasons, as Mr Nazir, who only moved to Britain after he was married, demonstrated a different set of expectations for the way in which children were raised, compared to all the other parents interviewed, including his wife. It was the difference in expectations between Mr and Mrs Nazir, rather than anything to do with employment, which was the major source of stress in this case. The lesser levels of discontent may also be due to the nature of the Nazir's support network, which although small, consisting only of Mrs Nazir's parents, did provide a lot of assistance with looking after the children after school.

A second association is also evident, when looking at table 5.2. Four of the five couples identified as collaborative and not having large support networks rely on forward planning in their parenting, rather than reacting to situations as they arise. These couples tend to anticipate issues before they occur, and talk about them in advance, rather than waiting until a decision is needed. The fifth couple identified as collaborative and not having a large support network, the MacAllisters, showed more of a mixture of planned and reactive parenting. Their support network was of middling size, but they also showed similarities with the collaborative couples with large support networks, in perceiving plenty of time available to them as a family. Only one other couple demonstrated a large amount of forward planning in their parenting, Mr and Mrs Barnes. These have already been identified as an unusual case, with some discrepancies between the interviews and the GUS data. Mrs Barnes often worked long hours, so, in order to maintain her involvement with the children, she had to organise things effectively. Mr Barnes did most of the day-to-day childcare, and managed to maintain a large support network.

It appears that a lack of support means that the couples in this sample had to be more organised in order to collaborate. Alternatively, it could be said that support dilutes a couple's ability to plan ahead. Either way, support from outwith the household appears to have a direct effect on the process of collaboration within. Increased support blurs the boundary that delineates the household from its environment. The increased number of interactions appears to reduce the control each parent has. This can be seen, for example, in the situation of parents being unable to set rules regarding the consumption of sweets when the child is in someone else's care.

To some extent, a larger support network does require increased organisation, knowing who is responsible for picking up a child from school, and whether the parent is taking responsibility for additional children. But, the overall effect is the opposite, with support from outwith the household reducing the need for organisation within in order to collaborate effectively. The reason for this may be linked with the next observation, with time being the determining factor in allowing couples to collaborate without the need for forward planning.

The third observation concerning table 5.2, is that the collaborative parents in the sample with a large support network are most likely to feel they have plenty of time available for their parenting and other activities. Of the five such couples (six if the Barnes are also included), only one, the Ogilvies, do not feel they have sufficient time for everything, and they are still content with their limited time. Only two of this group feel any ongoing stress, and for none of them is this particularly significant. The five collaborative couples without a large support network all, except for the MacAllisters, feel their time is limited, but are content with that lack of time. They are, as a whole, slightly more stressed than the first group. Eight of the nine couples who are deemed non-collaborative find lack of time to be problematic, and eight of the nine also suffer from some level of ongoing stress.

It appears that in this sample, collaboration allows couples to be content with the limited time they have available. Only the combination of collaboration within the home and support from outside, however, actually generates time for couples, or at

least allows them to perceive there is sufficient time for all their activities. Again, the process of collaboration is affected by the presence of support from outside. This will be explored more in the next chapter.

A fourth observation could be made by looking at tables 5.1 and 5.2 together. All of the couples who make use of a middling or large support network are at least partially collaborative, in that they are only occasionally unsupportive and sometimes weak in their communication. For much of the time, they do act collaboratively. It could therefore be said that support enables collaboration. The mechanism for this may well be through providing time for couples to talk, even though a number of couples with support still feel short of time. This requires further exploration.

5.5 A typology of collaborative parents

Using table 5.2 as a starting point, it is possible to develop a typology of collaborative parents. Within the group of more collaborative parents, there are those who organise themselves very efficiently within the household, to cope with the stresses that life throws at them. This group I have termed “internal collaborators”. There are also those who are less forward thinking, and who make greater use of social networks. This group I have termed “external collaborators”. The less collaborative couples can also be split into those who largely act separately from each other, the “individual actors”, and those who sometimes work together and sometimes act separately, the “partial collaborators”. The latter all have a middling or large support network, and were described as being “occasionally unsupportive” and “sometimes poor” in their communication about the children in table 5.1. Three of the four in this group have also been through some sort of a crisis in their relationship, and appear to have made considerable joint effort to improve their relationship.

Table 5.3 A typology of collaborative parenting

Pseudonym (surname)	Original Typology	Size of support network	New Typology
Mr and Mrs Nazir	Non-collaborative	Small	Individual actor
Mr and Mrs Dewar	Non-collaborative	Small	Individual actor
Mr and Mrs Clark	Non-collaborative	Small	Individual actor
Mr Kinnear and Miss Kemp	Non-collaborative	Small	Individual actor
Mr and Mrs Ingram	Non-collaborative	Small	Individual actor
Mr and Mrs Finlay	Non-collaborative	Large	Partial collaborator
Mr Gill and Miss Gordon	Non-collaborative	Large	Partial collaborator
Mr and Mrs Peterson	Non-collaborative	Middling	Partial collaborator
Ms Quinn and Ms Robertson	Non-collaborative	Large	Partial collaborator
Mr and Mrs Ogilvie	Collaborative	Large	External collaborator
Mr and Mrs Ashcroft	Collaborative	Large	External collaborator
Mr and Mrs Urquhart	Collaborative	Large	External collaborator
Mr and Mrs Sutherland	Collaborative	Large	External collaborator
Mr and Mrs Jackson	Collaborative	Large	External collaborator
Mr and Mrs Barnes	Non-collaborative	Large	External collaborator
Mr and Mrs MacAllister	Collaborative	Middling	Internal collaborator
Mr and Mrs Evans	Collaborative	Middling	Internal collaborator
Mr and Mrs Henderson	Collaborative	Small	Internal collaborator
Mr and Mrs Laing	Collaborative	Middling	Internal collaborator
Mr and Mrs Turnbull	Collaborative	Small	Internal collaborator

Table 5.3 summarises the way in which each couple fit into each of the classes. The ideal type of "internal collaborator" can be characterised by communicating frequently and constructively about their children; having a supportive relationship; being organised in their parenting and planning ahead; having limited support networks; and being content with their situation. The ideal type of "external collaborator" is characterised by communicating frequently and constructively about their children; having a supportive relationship; being reactive in their parenting; being more likely to socialise as a couple; having a large support network; being content with their situation; feeling they have sufficient time for all their activities; and being less likely to be stressed. The ideal type of "individual actor" has a less supportive relationship, with weak communication about the children; is reactive in their parenting; is short of time; has limited networks; is not content with their situation; and acts as individuals. The ideal type of "partial collaborator" is more supportive of their partner's parenting, and has better communication than the individual actors (though worse than either type of collaborators); is willing to make

changes in their relationship; is reactive in their parenting; is short of time; has large networks; and is generally content with their situation.

Two couples do not quite fit into the typology. Going on the interview data alone, the Barnes, as previously discussed, act collaboratively, and make use of a large support network, so have been classed as external collaborators. The other couple, Eve and Robert Finlay, from the evidence in the tables, do fit in with the partial collaborators. However, they could be described as both collaborative and non-collaborative at the same time. For example, they had a rule that if one partner feels strongly about something, then it is their responsibility. The construction of such rules may seem collaborative behaviour, but the outcome of such a rule was that Eve ended up doing far more childcare and housework than her husband, ferrying children around to numerous activities, or changing nappies when they were younger, often while he would sit and watch TV. Eve tended to excuse her husband's lack of involvement, preferring to avoid any conflict with him. Eve Finlay:

> Mrs F So, like, Megan, we did it 50:50, he did his fair share of nappy changing. When we were on Sally that was my job doing that. [...] I guess it's part of our deal of, you know, if you care about something that much, then that's your job, like with activities. So the thing with Sally was I really care about eco-friendly nappies. He really doesn't like eco-friendly nappies, so with Sally I was really eco, so that was my job [laughs] to sort out these eco-friendly nappies, so it's partly to do with that.

The Finlays have found a way of working together that satisfies them, collaborative in that they have negotiated and evaluated the roles they take on, but non-collaborative in the division of labour. While partial collaboration seems like a reasonable description, they could equally be described as external collaborators or individual actors. In truth, they are simply hard to classify, a reminder that not every couple will fit easily within the typology.

In the following sections, a case study is provided for each of the four classes, to illustrate the differences.

5.5.1 Internal collaborators

Internal collaborators are what one might think of as the archetypal collaborative couple. They communicate well and consult each other on all but the simplest day-to-day decisions. They have close relationships, and are generally content with their situation. And they are organised. Routines are in place that allow each partner to know what needs to be done, and to act in such a way that they can be confident their partner would agree with how they are acting. They have also worked hard to achieve the level of collaboration they demonstrate. The case of Annie and Aidan Laing illustrates these points.

Annie and Aidan lived in a relatively small upper villa, on a busy road, in one of Edinburgh's less popular neighbourhoods, along with their two daughters, Niamh, aged 8, and Isla, aged 8 months. Like several of the more collaborative couples, they had gone through a period of change, in order to achieve a lifestyle with which they were more content, and indeed were still doing so. Aidan had been working for a number of years, but had become rather disillusioned with his job. Consequently, he gave up his position in order to go to university and study a subject which would allow a change in the direction of his career. At the time of the interview, he had just completed his course, and was looking for appropriate employment. Annie worked three days a week in a job focussed on children.

Both Annie and Aidan tended to take the long view on matters. Obviously entering university as a mature student, in order to improve one's career prospects demonstrates long term thinking, but along with that, they also took out a fixed rate mortgage, so they knew what their outgoings were likely to be during that period. They had already made a decision about secondary schools, despite their oldest daughter only just having finished primary 3, and when faced with stress, they coped by looking beyond. Annie Laing:

Mrs L I think you know it's not forever. I think there was an end in sight with university, and his finals, and everything. I just knew that he has to get his degree, so that he can get a better job and things, look to the future. And

knowing that Isla's not going to be a baby, and up all night forever, as well. I think if it was a first baby you'd be thinking "I'm never going to get any sleep", but with the second one, you know that it's not forever.

Despite their ability to plan ahead, and Annie's work with children, both of them recognised they were not fully prepared for parenthood when their first daughter was born. Only those parents who were older when their first child was born seemed fully prepared for the responsibility of parenting, irrespective of how well organised others may be. Aidan Laing:

Mr L I was still coming out of the fog, the alcohol fog of the late 90s [laughs], you know, the sort of mid to late 20s period of your life. […] It was something you just had to deal with. We knew it was happening, so it gave us an opportunity to do different things, like Mothercare and Mamas and Papas, and look at all the new things we were going to have to deal with, and try and prepare ourselves for it. Which nothing really can. […] Well we kind of discussed it. [Annie] automatically researches everything, that's what she'll do. And then we'll discuss it, and I'll learn from her.

Annie had read parenting manuals, spoken to other parents, and gone to ante-natal classes, but still felt unprepared for being a parent first time round. The two of them learned from each other, however, and utilised each other's strengths. Aidan admits he let his wife do the research, but on other matters, such as financial decisions, he takes the responsibility for doing the research, utilising his interests and knowledge. Seeing parenting as a learning experience was common to many of the parents interviewed, not just those recognised as internal collaborators. Communication is key to this shared learning experience, however, and it is the more collaborative parents who tend to be able to communicate what they have learned better.

Annie and Aidan communicated frequently about their children. Like many other couples, it was largely in passing, while doing other things, such as tidying up. Occasionally there would be specific things which needed sorting out, and these would be discussed after the children were in bed. While many of the less collaborative couples found their communication broke down when times were stressful, Annie and Aidan went to efforts to ensure their communication worked effectively. The period of Aidan's final exams, which coincided with having a young

baby, was particularly stressful, but the two of them made sure they talked regularly about each other's needs and emotions. They agreed what their priorities were during this period, and negotiated a change in roles, which was made easier by Annie being on maternity leave, so that she took on a greater part of the childcare.

The Laings made use of routines to organise their days. I had been asked to come round at 11am, because they knew the baby would be asleep at that time. Similarly, the older child knew the routine around her own bedtime and mealtimes. A use of routines does not, however, imply lots of rules. There were some rules, which had been put in place in response to a particular issue, such as Niamh only being allowed to read for half an hour once she had gone to bed, but rules were not put in place unless they were seen to be needed. This was common to most families. Households where television viewing was limited tended to be the ones where children would sit and watch what was deemed to be an excessive amount if they were not restricted by rules. Niamh generally was not interested in watching television for hours on end.

Rather than rules, the more collaborative parents tended to talk about expectations. There were expectations for how a child should behave in public, or at the dinner table. There were expectations for children to do a certain amount of exercise. There were expectations for children to do their homework. The advantage of expectations over rules is their flexibility. During summer holidays, most of the children were allowed to stay up later than during the school term, with no big issue being made of breaking or amending a rule. Expectations were reinforced through talking with children, and rewarding positive behaviour.

The Laings used a star chart system to give a visual demonstration that they were pleased with Niamh when she did things like tidying her bedroom, which both parents mentioned as being a major issue at the current moment, or emptying the dishwasher. As with all the other internal collaborators, Annie and Aidan tended to agree on how and when to discipline their children. When Niamh was younger, they had both used the naughty step, whereas now, discipline would largely be positive, with the occasional threat of not being allowed to do something.

On occasions, Annie would question Aidan about his parenting. Using knowledge from her job, or research she had done into specific issues, she would challenge Aidan's thinking and actions. Aidan:

> Mr L She'll take issue with certain things I do. [...] Keeping them up late, playing with them too much before bed, just the usual stuff. Letting them watch various things on television. But she won't mention at the time, she'll wait until afterwards. Letting the kids sit in the front of the car [laughs]. Nothing serious, just things dads do, I suppose.

These challenges would always be done out of earshot of the children, so the image of a united front is not disrupted. And Aidan would respect Annie's knowledge of such matters, and change his behaviour, even when he originally felt his own ideas were sensible, such as having the baby in the front of the car, so that he could see her. Among the less collaborative couples, as will be seen later, behaviour was less likely to change as a result of such discussions.

While Annie certainly had the greater knowledge of parenting matters, discussions were not all one way. Aidan has enabled Annie to become more relaxed about her parenting, making her realise that she doesn't have to do everything by the book, and as she recognises: "the kids haven't read the books".

The Laings, like the other internal collaborators, come across as a tight-knit unit. While they do have social contact, and assistance from family, they give the impression that they are quite happy on their own, and do not need help from outside the household. They actually have a bigger network of people who could or do help than the other families classed as internal collaborators, with Aidan's mother offering to do childcare one day a week, once Aidan starts working again, and Annie having friends with children of the same age, but they choose not to take advantage of the mothers' network for babysitting. This has obvious knock on effects on time available to the family. Evenings out for Annie and Aidan have been put on hold since the baby was born, and time together without the children is limited to about an

hour a day, once Niamh has gone to bed. However, at least until Aidan finds employment, there is plenty of time to spend as a family.

5.5.2 External collaborators

While internal collaborators can be partially viewed as a closed system, with clear communication, and routines in place to ensure the efficient running of the family, external collaborators are more open to outside influences. Consequently, one sees a slightly different process in the way such couples collaborate. They tend to be more reactive in their parenting, dealing with situations as they happen, rather than thinking ahead to what is likely to occur. They are generally under less stress than their counterparts, and they make use of larger networks of friends and family to increase the time available.

Tania and Connor Sutherland are perhaps not totally typical of this group, but the way in which they use their social networks provides a good illustration of what is meant by external collaboration. As well as good external collaboration, they demonstrate some planning within the household, though not as much as the internal collaborators. They also admit to a greater amount of communication difficulties than any of the other collaborative couples, and a certain amount of stress, largely due to Tania's personality. The two of them live in a large house, a little way out from the centre of Edinburgh, with their children, Alastair, aged 9, and Bonnie, 7. Both work full-time. Like the Laings, they have also gone through major changes in their careers, for the benefit of the family. Connor gave up a freelance job, which gave him a certain amount of flexibility while the children were younger to be the main carer and work from home, for a more steady, but still flexible one. Tania, who was always the main breadwinner, has progressed her career by setting up her own consultation practice.

Tania and Connor both agree it is important for their children to have opportunities to get involved in organised group activities. Thus the children each do a number of activities after school: drama, athletics, gymnastics, swimming, brownies, cubs, and each goes to music classes organised by the school on a Saturday morning. While many other parents in the study find themselves in a bit of a logistical quandary, trying to get different children to different places on time, Tania and Connor actually manage to use the activities to create more time for themselves.

By making use of after-school clubs and various activities taking place on or near the school premises, Tania and Connor can both work full-time, not picking the children up until some time between 5 and 6:30 each evening. For some activities, other parents collect Alastair and Bonnie from school, together with their own children, and Connor picks all of them up from the activity. This of course requires a certain degree of co-ordination, so to describe external collaborators like Tania and Connor as less organised than the internal collaborators would be simply incorrect. The co-ordination, however involves more people than those in the household, so one can view them as more of an open system.

Connor recognises what the school community does for his family, and is aware that many of the activities of which his family takes advantage are only available because of the efforts of parents. He therefore does his bit as part of this larger system, volunteering to help with a running club at the school on a Tuesday morning, and football on a Saturday.

So, there are a lot of routines in place to allow the children to do all their activities, and both parents to work full-time, but this structure does not always continue throughout the rest of the day. While the internal collaborators tended to do a lot of looking at the larger picture of themselves as parents, negotiating roles and responsibilities, so that the day to day activities ran smoothly, the Sutherlands did not always manage the inward-looking aspect of parenting as effectively. Tania Sutherland:

Mrs S You always just imagined you'll always think the same way, and it will all just be easy-peasy, but you know, sometimes we fall out. Not just because of the children, but because of the irritance of the "oh, he's not booked the swimming class, I'll have to do it again". Or "do I have to keep thinking of Christmas presents?" That today thing, of who's responsible for what, is probably what we're not very good at agreeing.

Thus, there is a difficulty at the negotiation stage of the relationship, such that roles and responsibilities are not always agreed. Because of the help received from friends and relatives, such breakdowns can be smoothed over. The Sutherlands, on the whole, are supportive of each other, and communicate frequently about the children, but they have the time to do so, and to work at their relationship. When one comes across similar breakdowns among the individual actors, they can be more than just an irritance.

Not only do the Sutherlands make use of networks of parents for sharing lifts to or from activities, but they also have friends and relatives who are prepared to babysit on a regular basis. Connor and Tania's brothers and sisters, as well as close friends, all take the children on occasions, allowing them to get a day or weekend to themselves at least once a month. As the children have been getting older, however, it's the daily time without the children that Tania previously used to unwind, that she finds is getting shorter. Tania Sutherland:

Mrs S [When the children were younger] they were in bed by 7. I could get them into bed by 7, and I would then go up to the gym, or we'd talk and have dinner. Now it's not like that, because they don't go to bed at 7. I mean, they don't go to bed very late, it's probably half past 8. Even then, I'm ready to go to bed at 10. It only gives me like, an hour and a half. So, I think that's what's happening, and we haven't really managed that transition yet.

Again, Tania recognises this is an issue, but has yet to successfully negotiate a solution with Connor. However, the two of them are well aware of the choices they have made, and the impact of these on their lifestyle: the choice to have children, their career choices, choice of school, choice of where to live, etc. Like the other collaborative couples, they take responsibility for these choices, and are fairly

content with the outcome. Again, this is not always the case for some of the less collaborative couples.

Discipline is more reactive than was seen with the Laings. While there is some of the positive, it is generally used in order to get the children to do something, rather than being a planned tool to help the children learn what is expected of them. There is some forethought though. Tania Sutherland:

Mrs S Probably one of the reasons I got them a Nintendo for Christmas two years ago is so that I could take it away if they don't behave!

Removal of privileges was the most common form of discipline among all groups, and for children old enough to be interested, computer games were the standard privilege to be removed. The Sutherlands worked through a range of different types of disciplinary technique, and were generally fairly consistent with each other in how they would deal with a situation. Discipline was nearly always handed out by one parent only, as a reaction to what had happened, while the other backed them up. Tania recognises, however, that as they are getting older, arrangements will have to change. Tania Sutherland:

Mrs S Sometimes as a family, we've had to have a couple of sessions, or, you know, explain their behaviours, things like that. As they're getting older, there's probably going to be more of that as a family. Say, "let you know, that's just not acceptable". So, we're probably doing more of that. Whereas when they were little it's a bit more individual. Whereas now, it's beginning to be a bit more joint, discussing it at the dinner table, something like that. Probably not enough of that, but that's where we're heading anyway.

Again, Tania has recognised an issue, but the two of them are still at the negotiation stage of the collaboration cycle in regards to this. Internally collaborating couples may have been able to pass through this phase more quickly, because of their greater focus on issues within the household.

5.5.3 Partial collaborators

As was seen with Tania and Connor Sutherland, not every collaborative relationship is perfect all the time. Sometimes processes break down, but collaborative couples tend to be able to deal with issues relatively quickly. Three of the four couples identified as "partial collaborators" had previously reached a point in their relationship where they recognised it was not working. Communication between them was poor, and the children were not getting the best out of both of them. Consequently they made conscious efforts to improve the way they worked together.

As tables 5.1 and 5.3 show, the level of support within the relationship, and the standard of communication, is now on the whole better than it is for the individual actors, although not sufficient to be considered fully collaborative. They are also more content with their situation than the individual actors, and as a possible indicator of what has allowed them to achieve this change, they have larger support networks. Mary Gordon and Iain Gill are one of these couples.

Mary and Iain live with their 7 year old son Justin, in a small terraced house on the outskirts of Edinburgh. They had been together for 13 years before Justin was born, and were quite settled in their lifestyle, each doing things on their own a lot. When Justin was born, Iain worked long hours, but felt the need to change that. Iain Gill:

Mr G I used to work nigh on 7 days a week when Justin was first born, and chose to leave that career to be able to spend more time with Justin. I [worked in particular industry] for a living. It's a very lucrative way of earning, but it does have its pitfalls, which is you've got to be there nigh on, well, I would be there 7 days a week. Even on the day that I would get off, I would have to go in to make sure that there was things done. I discussed that with Mary, and was unhappy that I wasn't getting to have much impact on the growth of my child. So, in his first year, I left, and took a quite considerable amount of time off, which I was fortunate to be in a position to do at the time, so that I could spend time with my child, and watch him grow, and assist him grow. I'm very proud of my father, but didn't know him 'til I was about 18, because he worked very hard, and if he wasn't working, he was golfing, didn't see me. And, no disrespect to my father, but I don't want to be like that with my son. [...] I wasn't happy, so, the choice was easy. It was a simple choice. But, I think the harder choice for me was seeing if Mary was going to be happy with

that. Coz at the end of the day, the […] industry had been very kind to me, in allowing me to have the finances to do lots of other things within our lives. [...] I'm quite confident that my salary now is half of what it was when I was [working in particular industry] very successfully. But, my quality of life with Justin is a hundred times better. So, it's not that you're putting a cost to it, you're putting a value to what you want for you and your children and your partner.

While Iain was clearly thinking of the family when he made this decision to quit his job, it was a decision he had come to on his own, and he did not know how Mary would react. Thus the collaborative process was largely removed from the situation, although the outcome was one that ultimately both partners were very happy with.

Having taken this step, Iain and Mary did not suddenly start collaborating. Iain was able to spend much more time with Justin, and take some of the childcare off Mary, but he was not a confident father. As Justin has got older, he has become more confident, but Mary felt that it was only in the last year that he has really recognised his own abilities. Mary had also recently changed jobs, and that meant more time away from the family. The first time she went away, there was a lot of anxiety on the part of both parents whether Iain would be able to cope. Mary felt it had done him a lot of good, though, to be left alone with Justin for the week. While Iain and Justin may still live off pizza and baked beans while Mary is away, Iain's growing confidence has allowed the relationship to become much more equal in taking care of Justin.

Like many of the mothers in the study, particularly those in the less collaborative partnerships, Mary still takes on the bulk of the responsibility for her child. She is the one who structures the day for both Justin and Iain. Iain Gill:

Mr G I'm very confident that [the daily routines are] something that Mary put in place, to, I suppose, or I think, assist us both in dealing with the job of raising our child. [...] I think Mary very much put routine in as a way of giving me confidence, and order, to dealing with the task. Coz I've never been a routine person at all, really. I am much more spontaneous and sporadic in the things that I do. [...] Unfairly to Mary, I bow to her learning. [...] So, yeah, I suppose it's laziness on my part as well. I've let Mary organise it, but I think she's doing a sterling job, so let's carry on with it.

Iain recognises Mary's strengths at organising things, and lets her take charge. On outward appearances, Iain and Mary may appear to do things equally, with Iain doing more of the picking up from school and more of the cooking for Justin than Mary manages, but the responsibility remains with Mary. So, rather than a true collaboration, there is a manager and worker situation. And like many of the women in the study, Mary does not find it easy, relinquishing some of the control. When asked why it would be her who took time off work if Justin were ill, Mary replied:

Ms G Because, if my child was ill, I'd want to be with him [Laughs]. That's why. My maternal instinct says nobody's going to be able to look after my child as well as I can.

But she has managed to let herself step back, and leave Iain in charge on occasions. She admits that she does not always agree with his decisions, but considers it important that he makes them.

At the same time as Iain quitting work, he also lost his mother, which he took rather badly. Communication became very difficult between Iain and Mary. In the end, it was the telephone that enabled them to talk sufficiently to get through that stage. Over the years, there have been other times when communication has broken down, but as both have adjusted to being parents, it has got much better. Opening the dialogue has often been the problem, and once opened, communication becomes possible, and the cycle of negotiation, performance and evaluation can take place.

Like the external collaborators, all of the partial collaborator couples had a middling or large support network. Iain and Mary were no exception to this, getting a lot of assistance from neighbours and relatives. Much of the extended family, particularly on Iain's side lived locally, some of whom were very willing to regularly take Justin for a night. Neighbours with a child of the same age shared the school run, while Justin, like the other children in the immediate vicinity, was always in and out of the other houses.

Partly because of the large network, and partly through Mary's organisational skills, Iain and Mary manage to find a reasonable amount of time for themselves, although through choice, this tended to be used separately rather than together, Iain heading off to the golf course twice a week, and Mary to the gym. This time allows Iain in particular to calm down when things are difficult, so that issues that have been left at the negotiation stage can be approached in a better frame of mind. This is a luxury not so readily available to the final class, of individual actors.

5.5.4 Individual actors

Much of the older literature on parenting describes fathers as being on the periphery of the family. However, as more recent research has suggested, this is becoming less the case, and is not evident in any of the interviews with couples classified as collaborators, even if, in the majority of households, the mother does take on the larger part of the responsibility for raising the children. The group of couples described as individual actors are perhaps more diverse than the other groups. Two of these fall into fairly traditional patterns, with a peripheral father who works full-time. The other three all face quite specific circumstances, from which it is more difficult to generalise. One is a couple from different countries, with a large age gap between them, each with quite distinct ideas on what is best for their children. Another is a couple also with quite different backgrounds and a large age gap, but whose problems have been compounded through job losses and illness. The third is a couple who have grown apart over the years. One of the more traditional couples is used to exemplify this category, and one of the main barriers to collaboration: employment.

Sarah and Michael Clark live together with their 7 year old son, Julian in a smallish house in a pleasant, but not expensive, part of Edinburgh. Sarah works from home on a part-time basis, as well as doing most of the childcare and housework, while Michael works full-time, with regular long hours and occasional weekends. Sarah

tends to eat with Julian during the week, with Michael's only daily contact with his son being taking him to school and reading a bedtime story. Michael's work is a cause of tension between the two of them, as it keeps him away from home, putting quite a burden onto Sarah, without being well enough remunerated for this to be considered fair. Sarah Clark:

Mrs C It's caused us a lot of stress, his job, between me and him, actually. I hate his job, to be totally honest, coz he doesn't get paid anything like he should get paid. He puts loads of hours in, and it's just really frustrating for me. And I'm always moaning all the time about it. It causes a lot of tension between us. Just purely because I think he does too much for too little pay, you know. I just think it's not fair, you know. But I just can't see how... I know Michael's personality, and I just don't see how it's going to end unless something happens, like he gets made redundant or something. You know, I've talked to him a lot about trying to change things, but I just don't know.

With Iain Gill, there was a similar situation: work keeping the father away from the family. Iain, however, was not just willing to take the step of quitting work in order to change things for the benefit of the family, but financially able to do so. For Michael, that step is just a little too far at the present, although he would like to spend more time with Julian. While Sarah cannot see Michael changing his work situation, Michael recognises the damage it is causing, and, rather than negotiating a way around this with Sarah, he tries to find solutions on his own. When asked about looking for work nearer to where Sarah's parents live, Michael responded:

Mr C Yeah, I've looked at them. They don't really offer enough money, anything I could get at the moment. It doesn't seem worthwhile. Also, just the act of moving costs money. It's 50-50 whether we do it. I'd prefer to be better placed to move before I do it. [...] We may have to. It depends if the situation here becomes that it isn't making us all happy enough basically. It's something that I need to talk to Sarah more about. I've probably been avoiding it.

SH So, why have you been avoiding it?

Mr C Coz I don't have the answers at the moment.

Michael feels the need to get better qualified in order to find a better job, but does not have the time to study. He cannot find the time to study for the same reasons he

does not have enough time with Julian, because he has to do overtime in order to earn sufficient money to pay the bills. Sarah and Michael end up following circular arguments, which just adds to the stress they are under.

According to Sarah, Michael's work results in him being on the periphery of the family. At Easter, Sarah had taken Julian to her parents for a week, but Michael had left it too late to arrange the time off work. Sarah Clark:

Mrs C Really, it's actually very important for him to come with us. I find that a real major problem. Because, sometimes I find it's me and Julian, and Michael's over there somewhere. You know, he's just like, I try and explain this to him, he's on the periphery a lot. And I don't know whether, sometimes, to be honest, it's easier to live like that. I think my sister's husband's a bit like that. I think sometimes they lose themselves in their jobs, because, maybe family life's difficult. It's tricky. So, maybe they just bury themselves in work a lot more.

While Sarah feels that Julian needs his dad around more, Michael thinks that the main impact of his lack of time with the family is on Sarah. Working from home, and having moved to Edinburgh only around 5 years ago, she has few real friends locally, and often feels unsupported and short of adult company. Particularly on the weekends Michael is working, Sarah recognises the stress gets to her, and she ends up becoming irritable with Julian. Michael's lack of involvement also polarises their parenting skills. Michael wants to enjoy the little time he has with his son, while Sarah finds she is put in the position of disciplinarian because Michael does not know Julian well enough to deal with his behaviour. This again leads to confrontation between the two of them, with Sarah accusing Michael of being too soft, and Michael saying that Sarah undermines him by taking over a situation he is dealing with. Michael also feels the impact of his own lack of involvement, not just because he feels he is missing out, but also because he feels guilty about leaving Sarah with such a burden.

Decisions about Julian are often left to Sarah. Even major decisions, such as the choice of school, although discussed between the two, are ultimately Sarah's. Michael was quite reluctant to send Julian to a school some way from where they

live, but in the end he gave in to Sarah's argument. Sarah feels she is simply in a better position to make decisions, though, because she talks to other parents, and learns from them.

Work is not the only factor impacting on Michael and Sarah. They also have very little support. They have no relatives in Scotland, few friends, and moving to Edinburgh after Julian was born, they missed out on the sort of ties mothers often form following ante-natal classes or mother and toddler groups. While they have asked neighbours to babysit while they have attended parents' evenings or other events at the school, they do not use babysitters to allow them time to go out together at all, partly due to lack of money, and partly, as Sarah suggests, because they are "stuck in a rut". The time they get together in an evening is very limited, with Sarah having already eaten with Julian, and then wanting to go to bed relatively early herself. Tiredness sets in, so when there is something Sarah wants to talk to Michael about, it often gets put off or forgotten completely.

Following a stress theory model, one can see an imbalance in the demands of work and raising a child, with the limited capabilities within the household with no real external support and a shortage of money. The lack of collaboration in dealing with this imbalance could well lead to a crisis, perhaps providing the energy required for Michael to change his employment situation.

5.6 Conclusion

The first half of this chapter was used to illustrate what is meant by collaboration in various circumstances, and to demonstrate, without attempting formal validation, that the operationalisations of collaboration using both the quantitative and qualitative data are in fact measuring the same concept. It was shown that all ten of the couples assessed using the GUS data as collaborative demonstrated the types of behaviours which one may expect of collaborative couples. For nine of the ten couples assessed

as non-collaborative, the evidence suggested there were gaps in communication and support for each other, which limited the efficiency of the process of collaboration. This was deemed to be sufficient evidence to demonstrate that the operationalisation had indeed captured the concept of collaboration.

The second half of this chapter considered the question of how informal social support affects the process of collaboration. Because of the small size of the sample used for the interviews, these findings should only be taken as indicative of what may happen in other households. Four possible ways were noted. Firstly, social support appeared to reduce the need for collaboration in determining contentedness with one's situation. All of the couples with large support networks and all of the couples who were assessed as collaborative appeared to be content with their lifestyle. Those who were neither collaborative, nor well supported, were not content.

This implies that there are multiple routes to becoming content with one's lifestyle. Social support is one of them, providing it is used to support both parents, and collaborating with one's partner over raising children is another. Routes that favour the individual over the couple or family unit, such as through employment, do not appear to raise the overall happiness of parents, and may actually be counter-productive if they raise issues of inequality.

The second effect of social support, was that it appeared to increase the time available, or the perception of time available, to collaborative couples. Five of the six collaborative couples with large support networks perceived sufficient time was available for all their needs, while four of the five with smaller networks perceived only limited time. All were satisfied with the limited time, unlike the non-collaborative couples, recognising they had made choices in terms of work and family, with which they were very happy.

When social support takes the form of babysitting or childcare, clearly time is being given to a couple. Collaborative couples used this time to satisfy their personal needs. When the same time is provided to non-collaborative couples, most of them

still felt short of time. This seems to be because collaboration helps couples to recognise their priorities, to understand that they have choices, and have made choices in the past which affect them now, and to feel control over their lives. Couples who feel restricted in their choices are less likely to feel they have time to do what they would like to do, and are more likely to be dissatisfied with a lack of time.

Social support also appeared to affect the process of collaboration, in that it reduced either the need or the ability to plan ahead, leading to parents being more reactive in their parenting. Collaborative couples without large support networks tended to organise themselves very efficiently, looking ahead to parenting issues that were likely to arise, so that they could plan accordingly. Other couples were more likely to react to issues as they occurred.

The reasons for this differed between couples. Some parents mentioned that support from their relatives actually impinged on their own relationship, with the presence of a third adult stopping a couple from talking to each other in the manner they would prefer. This reduced the ability to plan ahead. Some parents, used support from outside the home to, in part at least, replace support from their partner, for example, as a sounding board for parenting ideas. This one-sided support reduced the need to plan as a couple. Some parents delegated responsibility for their children to others at certain times of the week, losing control over rules or routines. Some parents without support networks felt a high degree of planning was necessary to achieve what may have been easier with extra support.

Finally, support appears to enable collaboration. The reason for this is probably associated with the time that support can provide for a couple to spend together without their children, although there was insufficient evidence in the interviews to suggest that couples do spend such time collaborating about their children.

The two-tier theoretical model for the process of collaboration, as set out in chapter 3, appears to be relevant for all the collaborative couples, but the use of support blurs

the boundaries. In order to keep the model simple, it took account of only the two parents. Everyone else, including the children, formed part of the environment, providing information and reactions to the actions of the parents. The reality for those who make use of support networks, small or large, is that the system is not closed. Negotiations take place with people outside the household, who may perform some of the parenting actions. The more people involved, the harder it is for those at the centre to maintain control, although they are rewarded with a gift of time.

The work in this chapter will be developed over the rest of this thesis. The typology of collaborative parenting will be adapted slightly in the next chapter, due to limitations of the quantitative data, and the idea of a gift of time will be explored further. The differentiation between internal and external collaborators will be utilised, while non-collaborators will also be split according to the availability of support, rather than the extent of collaboration.

Within this chapter, there has been a certain amount of the quantification of the interview data. This has helped in comparing the operationalisation of collaboration in the interview data with that using the GUS data. It does, however, oversimplify each of the interviews. The 20 couples interviewed provided 20 quite distinct insights into their own lives. Every one of them showed elements of collaboration. The variation between the ways in which couples collaborate will be overlooked in the subsequent chapters, when they are reduced to a single binary variable of collaboration or non-collaboration. This chapter should serve as a reminder of everything that is meant to be captured in that one variable.

Chapter 6 – Collaboration and the gift of time

"There is nothing of which we are apt to be so lavish as of Time, and about which we ought to be more solicitous; since without it we can do nothing in this World. Time is what we want most, but what, alas! we use worst."

William Penn (*Some Fruits of Solitude In Reflections And Maxims*, 1693)

6.1 Introduction

Time is limited. Each one of us has exactly 24 hours in every day. Yet one of the key aspects of support, both from one's partner, or from outside the household, is to be able to make a gift of time. While such a gift cannot change the number of hours in a day, it can relieve a parent of the necessity to carry out one activity, allowing time for an alternative. The most obvious example is childcare, which may allow a parent to take on employment opportunities, or to have an evening out.

Some parents choose to work shifts, both inside and outside the home, so that both can take on paid employment, without having to use someone from outside the household to provide childcare. While there are advantages to this sort of "tag team" parenting, there are disadvantages too, particularly to their own relationship, which is likely to suffer from the reduced time the parents spend together (Dienhart, 1998).

Other parents juggle work and family life by making use of flexible working arrangements offered by their employers.

In the last chapter, it was shown that, for the couples interviewed, collaboration appeared to affect feelings about available time. Only the combination of support from outside the home and collaboration within actually allowed couples to feel they had sufficient time for all they wanted to do. These findings led to the ideas that form the basis for this chapter.

In this chapter I will examine the relationship between collaborative parenting and the availability of time for work, family and leisure, and feelings about that time. In chapter 3, I drew on theories of rational choice, and theories highlighting inequalities within relationships, together with the concept of collaborative advantage, through coordination and efficiency, to create the following research questions:

RQ2: *Is collaboration between parents associated with increases in time available for leisure and for family activities?*
RQ2a: *Is collaboration between parents associated with a decrease in the perceived impact of work on family life and vice-versa?*

These will be examined using data from the Growing Up in Scotland study.

6.2 A brief review of policy and literature on time for parents

Government policy over a number of years in the UK, and throughout the European Union, has been aimed at increasing greater female participation in the labour force by encouraging employers to offer family friendly working options. The Employment Act, 2003, introduced the legal right for all parents of children aged

under 17, who have been employed for at least 6 months[10], to request flexible work, and for this request to be seriously considered. The type of flexible work requested can include part-time work, flexi-time, term-time working and home working. Of course, there is no requirement to approve a request, and after consideration, it can be rejected on various grounds, including the "inability to reorganise work among existing staff", "the burden of additional costs", a "detrimental impact on performance", and "planned structural changes".

Working parents also have other statutory rights[11], including up to one year's maternity leave, with 9 months statutory maternity pay; 13 weeks unpaid parental leave, for each child, up to their fifth birthday[12]; one or two consecutive weeks paternity leave; since April 2011, additional paternity leave of up to 26 weeks, providing the mother has returned to work[13]; and reasonable time off, without pay, to deal with family emergencies.

While legislation on family friendly working practices concerns working hours only, helping employees with childcare is also encouraged by the government. Tax exemptions are available to employers on workplace nurseries, and on childcare vouchers, providing certain conditions are met (see HM Revenue & Customs, 2011).

Reports commissioned by the government show that such flexible working options are not offered equally, however. Those working for large private sector or public sector organisations are more likely to have a range of family-friendly policies available to them than those working for small employers. Those in managerial and professional positions are the most likely to have access to such arrangements, while those in unskilled work and temporary work are the least likely (La Valle, Clery and Huerta, 2008). The unwritten assumption within such reports, implied by the

[10] And are employed directly, and have not made another statutory request within the previous 12 months
[11] For further details, see direct.gov.uk/en/Parents/Moneyandworkentitlements/WorkAndFamilies/index.htm
[12] Providing have been employed for at least 12 months
[13] To be taken any time from 20 weeks after the birth of the child, and completed before their first birthday. Statutory pay will be received up to the end of the 39 week statutory maternity pay period.

concentration on female employment, though, is that it will largely remain women who have the main responsibility for their children. Research carried out by O'Brien and Shemilt (2003) suggests that such family friendly working arrangements are offered fairly equally to mothers and fathers, but mothers were more likely to take advantage of flexi-time or compressed working hours, while fathers were more likely to say they would like such opportunities.

By the end of the 1990s, both mothers and fathers were spending more time with their children than they were in the preceding decades, and the ratio of mother's to father's time had decreased (Gauthier, Smeeding and Furstenberg, 2004; Sayer, Bianchi and Robinson, 2004). Other research, however, found increases in work-family conflict over a similar period, with time pressure from employment and a decline in free time (Nomaguchi, 2009), and complaints of a lack of time for the family (Daly, 2001). The amount of time spent in employment by fathers in the UK is among the highest in the developed world, and actually exceeds that of non-fathers (Biggart and O'Brien, 2010). While this time has fallen slightly in recent years, the time spent in employment by mothers has increased, as more women have entered the labour market. The combination of the increased pressure on parents to work, together with changes in expectations of involvement with children, has created this impression of a shortage of time (O'Brien, 2005).

Findings from time-use surveys suggest that wages are a significant determinant of time spent at work and on childcare, with increases in father's wages being associated with increases in the time their partner spends on childcare and decreases in the time their partner spends on work. Increases in women's wages are associated with increases in the time they spend at work, and with the amount of time their partner spends on passive childcare at weekends (Kalenkoski, Ribar and Stratton, 2006). In contrast, Koslowski (2010) found that fathers who spent more time with their children actually earned more per hour than those who spent less time. Those who work non-standard hours are likely to spend less time with their partner than others, although the working of nights may actually increase time spent with children (Wight, Raley and Bianchi, 2008).

The way in which parents spend time with children has also changed in recent years. "Good" parenting is often seen as pushing children to achieve, so that free play with children is being replaced by organised activities, facilitated by parents, rather than involving them (Ginsburg, 2007). Research suggests that engagement in play with a child by both mothers and fathers has a significant positive impact on the language and cognitive development of young children. However, excessively intrusive or controlling parental actions can have a negative impact (Tamis-LeMonda et al., 2004). Reading with pre-school children also has obvious effects on children's literacy skills once they reach school age (Bracken and Fischel, 2008).

Among slightly older children, paternal involvement is often more common on special occasions, such as family outings, rather than part of routine activities (Barker, 2011). Family leisure activities are often chosen by parents in order to achieve particular goals, either concerning family functioning and bonding, or because they are educational for the children (Shaw and Dawson, 2001). Middle-class parents in particular are keen to fit in with this image of the fully functioning family (DeVault, 2000).

While children and employment tend to take up most of a parent's time, mothers and fathers have other needs, such as time to spend on their own relationship, or for their own leisure, as well as housework and personal care needs, including sleeping and eating. In many studies, housework is included with childcare as "unpaid work". As personal care is fairly constant for most people, time choices can be considered between work (paid and unpaid) and leisure (Robinson and Godbey, 1999).

It has been argued that men and women perceive time differently. Men view time as linear, while women see time as cyclical. Thus it is easier for men to separate out work and leisure time, and consequently men's leisure time is more "leisurely" than women's, being less interrupted, and less likely to be spent with children (Bittman and Wajcman, 2000).

At the transition to parenthood, leisure time for both partners tends to decrease massively, and then gradually return over time. However, shared leisure time has been shown to have a positive effect on marital quality in the first year of a child's life, while independent leisure has been associated with increased conflict over the same period (Claxton and Perry-Jenkins, 2008; Dew and Wilcox, 2011). While a number of other studies have shown similar results, it is a possibility that independent leisure is simply associated with inequalities in leisure time, and it is this that leads to marital conflict.

6.3 Measures of time and feelings about time in GUS

This section discusses the variables that are used to operationalise the concepts of time available for leisure and family activities, and perceptions of the impact of work and family on each other. These are required to answer the research questions set out at the start of this chapter. Basic descriptive statistics are included. Controls, which are applied during the analysis, are described later (section 6.4.2).

6.3.1 Employment

Perceived impact of employment on family life scale (Sweeps 2 and 4)
This scale comprises five questions concerning the level of agreement with the statements:

My working has a positive effect on my child(ren)
Working helps me to better appreciate the time that I spend with my child(ren)
The fact that I work makes me a better parent
Because of my work responsibilities I have missed out on home or family activities that I would like to have taken part

Because of my work responsibilities my family time is less enjoyable and more pressured

	Min	Max	Mean	*Sample size*	*Missing*
Perceived impact of employment on family life scale (low = positive, high = negative)					
Mother, sweep 2	0	20	7.49	*825*	*446*
Father, sweep 2	0	20	8.50	*1,173*	*98*
Respondent, sweep 4	0	20	7.02	*867*	*404*

Perceived impact of family life on employment scale (Sweeps 2 and 4)

Comprising two questions concerning the level of agreement with the statements:

Because of my family responsibilities I have to turn down work activities or opportunities that I would prefer to take on

Because of my family responsibilities the time I spend working is less enjoyable and more pressured

	Min	Max	Mean	*Sample size*	*Missing*
Perceived impact of employment on family life scale (low = positive, high = negative)					
Mother, sweep 2	0	8	2.92	*825*	*446*
Father, sweep 2	0	8	3.04	*1,183*	*88*
Respondent, sweep 4	0	8	3.00	*866*	*405*

While it is useful to have scalar variables, the second scale is limited by consisting of two questions only. At sweep 2, when nearly all the children were in pre-school, both mothers' and fathers' opinions were collected. At sweep 4, when all the children had started school, only the respondent's opinion (in 99% of cases, the mother's) was collected. It would have been useful to have both partners' responses at sweep 4, but that was not possible. This is a comment that could be made again and again about the variables, but I shall avoid doing so. Questions could also be raised about the construction of the variables, whether differences between "strongly agree" and "agree" really is the same as the difference between "agree" and "neither agree nor

disagree", but their validity has been accepted. It should be noted that perceived impact is not the same as actual impact. The missing values are mainly due to questions not being asked when the respondent is not in employment.

Typical weekly hours in employment: both mother and father (Sweeps 2 and 4)

The weekly hours variables are also considered at sweeps 2 and 4. They do not include commuting time, which was an issue raised in some of the interviews as contributing to the impact of employment on the family. The partner's hours at sweep 4 were provided by the respondent. Individuals who are not currently in employment, or were recorded as working 0 hours per week are excluded from the analysis, hence the large number of missing values.

	Min	Max	Mean	*Sample size*	*Missing*
Number of hours worked (parents in employment)					
Mother, sweep 2	3	80	25.6	*838*	*433*
Father, sweep 2	3	97	44.4	*1,178*	*93*
Mother, sweep 4	1	80	25.9	*920*	*351*
Father, sweep 4	4	97	43.7	*1,139*	*132*

Family-friendly employment practices (Sweep 2)

6 variables are considered regarding family-friendly practices at the *partner's* place of employment. Each of these variables are also available for the respondent, but not reported, as figures are broadly similar. These questions were not asked if the partner was self-employed or out of work, hence the missing data.

	Yes	No	*Sample size*	*Missing*
Employer gives subsidised childcare	5%	95%	*1,034*	*237*
Employer has workplace crèche / nursery	6%	94%	*1,034*	*237*
Employer allows working of flexible hours	35%	65%	*1,034*	*237*
Employer provides extra paid leave if child sick	39%	61%	*1,034*	*237*
Employer allows paid time off in school holidays	12%	88%	*1,034*	*237*
Employer allows working from home at times	22%	78%	*1,034*	*237*

Number of family friendly practices available to partner / respondent (Sweep 2)

A variable was created from the number of such practices available at both the partner's and the respondent's places of work. In addition to the six practices listed above, four others are included in the count: employer gives childcare vouchers; employer allows flexible working by arrangement; unpaid leave if child is sick; and some other family friendly facility.

	3 or more	2 or fewer	*Sample size*	*Missing*
Number of family friendly practices available to partner	40%	60%	*1,034*	*237*
Number of family friendly practices available to respondent	37%	63%	*884*	*387*

Use of at least one family friendly arrangement by partner / respondent (Sweep 2)

Further variables are available on whether the employee uses each of these flexible working schemes, but so few individuals did use certain schemes that only overall figures for the use of at least one scheme are reported.

	Yes	No	*Sample size*	*Missing*
Use of at least one family friendly arrangement by partner	57%	43%	*1,034*	*237*
Use of at least one family friendly arrangement by respondent	68%	32%	*884*	*387*

6.3.2 Feelings about amount of time with the child

Feelings about amount of time with child (Sweep 2)

Both parents' responses are reported regarding the feelings they have about the amount of time with their child.

	Plenty of time	Just enough time	Not quite enough time	Nowhere near enough time	*Sample size*	*Missing*
How do you feel about the amount of time you have with the child?						
Respondent	39%	22%	30%	9%	*1,271*	*0*
Partner	19%	21%	42%	18%	*1,271*	*0*

Reasons for feeling not enough time (Sweep 2)

Most of the partners were in employment, so there was little variation in regards to work as a reason for not enough time with the child for the partner, hence only the main carer's response is reported with respect to this. Similarly, only the partner's response is reported with respect to working long hours, as few of the respondents did this. These questions were only asked if the respondent / partner answered that they did not have enough time with the child, hence the missing data.

	Yes	No	*Sample size*	*Missing*
Reason for not enough time				
Respondent: works	76%	29%	*492*	*779*
Partner: works long hours	58%	42%	*761*	*510*

6.3.3 Parental leisure time

Frequency of time away from the child to do something for own interest (Sweep 1)

Only the main carer's answer was available.

	At least once a week	At least once a month	At least once every 2 months	Less often	Never	*Sample size*	*Missing*
Frequency of time away from children to do something for own interest							
	27%	23%	13%	18%	17%	*1,271*	*0*

How often the respondent and partner go out together (Sweep 2)

Only the respondent's answers were considered, as the partner's answer should be the same. Missing answers occur when the respondent refused to answer the self-completion section.

	Once a week or more	Once a month or more	Less often	Hardly ever / never	*Sample size*	*Missing*
How often respondent and partner go out together						
	7%	28%	33%	32%	*1,263*	*8*

6.3.4 Frequency of activities with child

Daily / weekly activities (Sweep 2)

The frequency of 5 common activities that the child may do were examined.

	At least 6 of 7 days	Less often	*Sample size*	*Missing*
Frequency of activity in last week				
reading / looking at books	88%	12%	*1,271*	*0*
playing outdoors	92%	8%	*1,271*	*0*
painting or drawing	43%	57%	*1,271*	*0*
reciting nursery rhymes or singing songs	85%	15%	*1,271*	*0*
playing at recognising letters, words, numbers or shapes with child	65%	35%	*1,269*	*2*

Whether the father had done the activity with the child in the previous week was also looked at. Missing data occurs here if the activity was not done in the previous week. Reports of who had been involved with each activity came from the main respondent (normally the mother), so she may not always know about father involvement, particularly when she is not present.

	Yes	No	*Sample size*	*Missing*
Whether father did activity with child in last week				
reading / looking at books	77%	23%	*1,269*	*2*
playing outdoors	51%	49%	*1,219*	*52*
painting or drawing	24%	76%	*1,242*	*29*
reciting nursery rhymes or singing songs	50%	50%	*1,247*	*24*
playing at recognising letters, words, numbers or shapes with child	46%	54%	*1,212*	*59*

Less common activities (Sweep 2)

8 less common ones were examined. For these activities, whether the father had been present the last time the child did the activity was considered, and whether both parents were present the last time the child did the activity.

	At least once a month	Less often	*Sample size*	*Missing*
Frequency of activity in last year				
visiting a library	41%	59%	*1,271*	*0*
going to a live performance	3%	97%	*1,271*	*0*
going to a swimming pool	60%	40%	*1,271*	*0*
visiting a museum, gallery or historical site	9%	91%	*1,271*	*0*
visiting a zoo, aquarium or farm	10%	90%	*1,271*	*0*
visiting a cinema	5%	95%	*1,271*	*0*
going to an athletic or sporting event	6%	94%	*1,270*	*1*
going to a religious service or event	19%	57%	*1,271*	*0*

Parental involvement for the less frequent activities is only recorded for the most recent occasion. The analysis as presented implies less father involvement if an activity is done at least once a month, but the father was not present on the most recent occasion, than if it is done once a year, but the father was present. Data was missing if the activity had not been done in the previous year.

	Yes	No	*Sample size*	*Missing*
Whether father present last time child did activity				
visiting a library	16%	84%	*873*	*398*
going to a live performance	47%	53%	*881*	*390*
going to a swimming pool	66%	34%	*1,130*	*141*
visiting a museum, gallery or historical site	72%	28%	*637*	*634*
visiting a zoo, aquarium or farm	74%	26%	*1,026*	*245*
visiting a cinema	65%	35%	*802*	*469*
going to an athletic or sporting event	69%	31%	*372*	*899*
going to a religious service or event	57%	43%	*575*	*696*

6.3.5 Mealtimes

Mealtimes (Sweep 3)

Five variables on mealtimes are examined, as indicators of the utilisation of time, of father involvement, of family closeness, and of the priority which meals are given.

	Mostly	Quite often	Occasionally	Never	*Sample size*	*Missing*
Mealtimes with the child are enjoyable	50%	27%	21%	1%	*1,257*	*14*
Mealtimes are a rush	3%	12%	57%	28%	*1,257*	*14*
Mealtimes give time to talk	56%	28%	13%	3%	*1,257*	*14*

Of course, mealtimes with a child may not be enjoyable for reasons beyond the control of the parents, but one would expect mealtimes to be more enjoyable when the parents used them as occasions to bring the family together, and to talk. This however, may simply be a construction of social class, with middle class families

more likely to engage in conversation (Lareau, 2003). Mealtimes being a rush may also be for numerous reasons, such as getting children to activities, low prioritisation of food, or parents getting in late from work. For all sweep 3 variables, there are 14 missing cases, as 14 couples included in the dataset did not take part in sweep 3.

	Yes	No	*Sample size*	*Missing*
Child eats with her or his father / male carer	71%	29%	*1,236*	*35*
Child eats in a room not designed for eating (living room or bedroom)	21%	79%	*1,227*	*44*

Additional missing answers occur to the final two questions if the child does not eat a main meal at home, or for the final question if there is too much variation to say.

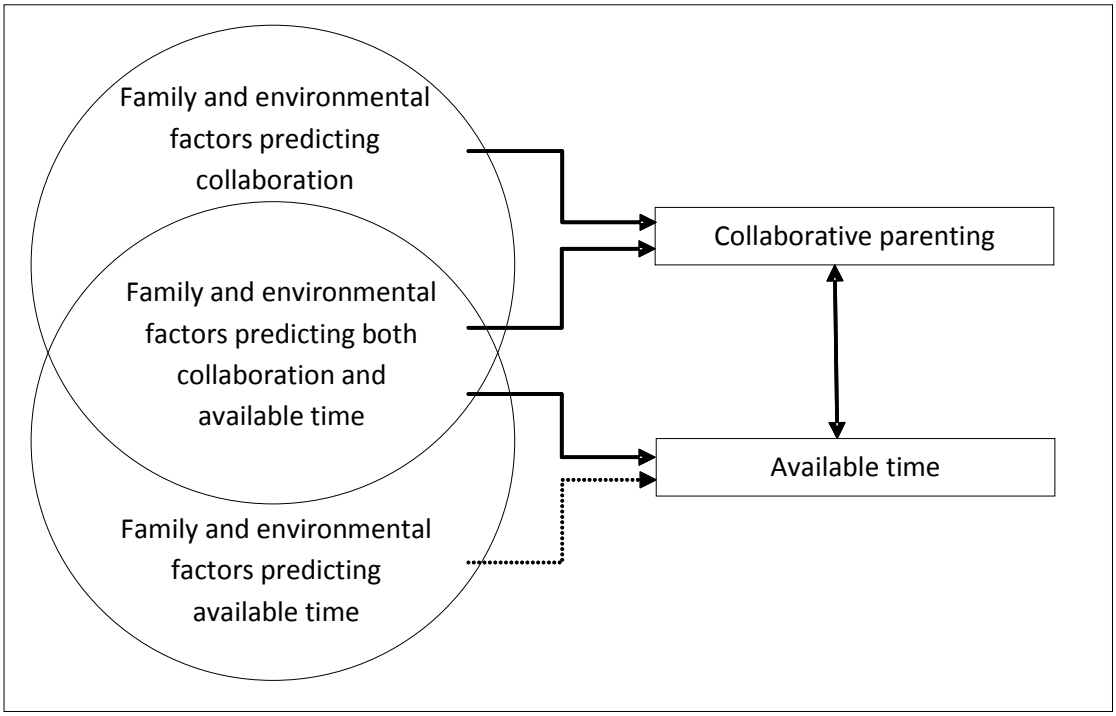
A child eating in the living room does not necessarily indicate eating alone, in front of the television. It may be that, due to lack of space, it is necessary to eat in the living room, but if that were the case, it is hoped that the respondent would have described the room as a combined living / dining room. The exact concepts each of these variables catch may not fit perfectly with the overall theme of time use, but together, they will give an indication of different patterns.

6.4 A model for the association between collaboration and time

The research questions to be considered in this chapter imply an explanatory link between collaboration and available time and feelings about that time. The direction of any causality, however, will not be tested, as the data do not allow this. In fact, in the previous chapter it was shown that the causality is probably more circular. When support was available, providing additional time through helping with childcare, all couples were at least partially collaborative. Hence available time appears to enable

collaboration, just as theory suggests that collaboration enables time to be well used. It is therefore simpler to think only in terms of an association. Drawing on the theories set out in chapter 3, particularly systems theory and ecological theory, it is important to provide a context for this association. One could model the association as shown in figure 6.1.

Figure 6.1 Model of the association between collaboration and available time



In order to test the association between collaboration and available time, one must include those variables which predict either available time or collaboration as controls. If available time is treated as the dependent variable, those factors which predict collaboration but not available time can be removed from the model, as they should be accounted for by the collaboration variable, and play no further part in the prediction of the dependent variable. It is easier, however, to treat collaboration as the dependent variable, and therefore remove those variables which predict available time, but not collaboration. This is because I will be constructing separate models for every one of the variables mentioned in section 6.3. Using collaboration as the dependent variable allows the same set of controls to be applied each time. The

values of the coefficients from the model, presented in each of the tables, must be interpreted based on the fact that collaboration has been used as the dependent variable. Associations between collaboration and available time that are statistically significant, highlighted in each table, should be statistically significant whichever variable is used as the dependent one. In the main cross-tabular analysis, however, collaboration is presented as if it is the independent variable. This is to allow ease of comparison between the different groups.

Indirect associations between available time and collaboration have been omitted from the model for simplicity, as they are unlikely to have large effects. There may, for example, be an indirect association via parental stress, with either a lack of time causing stress, which in turn leads to a lack of collaboration, or the opposite, with a lack of collaboration causing stress, which leads to feelings of a lack of time. Evidence from the interviews suggests that in a small number of cases, stress may result in this way, but for most couples, stress comes from outside the immediate family environment, such as employment, or deaths or illnesses in the extended family.

Social support from outside the home does not in itself predict collaboration, but because of its importance to the process of collaboration, demonstrated in the previous chapter, the tables in this chapter all show results for couples with and without readily accessible support. This is discussed further in section 6.5.

6.4.1 Data considerations

The data used in this chapter is from the Growing Up in Scotland study child cohort, and concentrates on the 1,271 cases identified as collaborative or non-collaborative at sweep 2, who remained together throughout the four sweeps of the study.

While the study is a longitudinal one, it is seriously limited in some respects, due to the lack of repetition of particular variables. Many of the variables of interest appear only once in the four sweeps. Thus one has to make an assumption that such variables remain constant across the four sweeps (separated by 3 years in total). This allows variables from different sweeps to be used in the same analysis, but essentially negates the longitudinal nature of the data.

Some variables obviously do remain constant, such as the sex of the child. Others do not, such as the use of childcare, the need for which changes as the child ages, and enters first pre-school and then school. Even though childcare has a major impact on time availability, its use is ignored in this chapter, as findings show that uses of childcare are very much dependent on available support, and not on collaboration. The collaboration variable is constructed from sweep 2 data (see chapter 4). For the purposes of this analysis, it has been assumed that levels of collaboration remain constant over time. Evidence presented in the previous chapter suggests that in most cases, this is a reasonable assumption.

6.4.2 Control variables

Variables included in an initial model of collaboration include: parental employment status; socioeconomic classification (based on employment relations); income; receipt of benefits; education; number of children in the household; age of parents; marital status; length of time living together; child and parental health; housing tenure; wealth; neighbourhood deprivation; degree of urbanity or rurality of neighbourhood; ethnicity; and religion. This model has been designed to provide control variables for the analysis included in the findings section. The controls are treated differently from the independent variables discussed in section 6.3 mainly in the way the analysis is presented, with the latter being the focus of the research questions, while the former are used simply to avoid claims being made about spurious associations between the independent variables and parental collaboration.

The exact concept being measured by each control is dictated by the data being used, the Growing Up in Scotland study. Details of these variables are provided in appendix A5.

These variables have been chosen because of associations demonstrated in other studies with parenting styles, roles and parental involvement. For example, unemployed mothers, or those in low prestige jobs are more likely to display negative parenting styles (Hoffman and Youngblade, 1998; Raver, 2003). Older mothers have been shown to demonstrate greater commitment to parenting of young children, and to demonstrate more optimal behaviour (Ragozin et al., 1982). The number of children in a household, and their birth order have been shown to affect the way in which parents behave (Sputa and Paulson, 1995). Child health issues may also lead to an unequal burden on the parents, and have been shown to be associated with a decrease in commitment to a relationship (Reichman, Corman and Noonan, 2004). Religious affiliations and ethnicity have both been associated with authoritarian parenting, and particular parenting practices (Leydendecker et al., 2005; Wilcox, 2008). Relationship quality has been found to be worse amongst cohabitees compared to married partners, although this has not been shown to be the case when children are present, as children are considered to have a stabilising effect on relationships (Brown and Booth, 1996). More recent research, however, demonstrates much greater variation among cohabiting couples with children, suggesting that relationship quality is worse, and fathers are less involved, in less stable families. The parents in such households are less likely to be married (Waldfogel, Craigie and Brooks-Gunn, 2010). More established relationships could be considered more stable, and therefore possibly more collaborative, than recently formed ones, as the weaker ones are more likely to have come to an end. On the other hand, research suggests that when children are present, relationship quality declines over time (Kurdek, 2008).

As highlighted in chapter 2, much of the research into parenting styles collects information from one parent only, generally the mother. However, in examining coparenting, or collaboration, it is important to fit data concerning both parents into

the model (Morrill et al., 2010). Therefore, both maternal and paternal characteristics are considered as control variables. Following a "relative resources" argument (Casper and O'Connell, 1998), it is also important to consider differences in resources, such as employment prestige and education.

Including all the variables listed above in the model would lead to a degree of redundancy, as there are obvious associations between some variables, such as income, education, receipt of benefits, wealth, and socioeconomic classification. Better educated people are more likely to be in managerial or professional employment, and consequently more likely to be in receipt of higher salaries. Including too few would lead to possible spurious relationships between collaboration and available time being identified. Variables which did not demonstrate a significant association with collaboration in a logistic regression model were removed from the final list of controls, leaving 8 control variables.

6.4.3 A model for the control of variation in the collaboration variable

All the variables discussed in the previous section were entered into a logistic regression model for the prediction of collaborative behaviour. These were then reduced to an optimal model containing only variables demonstrating independent statistically significant associations with collaboration. This model is shown in table 6.1.

The model shows that the odds of couples who are not married being collaborative are only around half those for married couples. Couples who have lived together for less than 3 years, i.e. those who were not living together at the time of the birth of the study child, are more likely to be collaborative than ones who have lived together for more than 11 years, although this difference is not statistically significant, due to the small number of couples in the sample who were not living together when the child

was born. In around one third of such cases, the natural father was not present in the household. When these are excluded, the strength of the association increases, although it is still not statistically significant.

Table 6.1 Logistic regression model of collaboration using key socioeconomic and household characteristics

	Dependent variable: Collaboration		
	B	Exp(B)	Sig.
Parents married			*.003*
Parents not married	-0.733	0.480	*.003*
Base category: parents married			
How long respondent and partner been living together			*.030*
Up to 3 years	0.703	2.020	*.106*
3 to 6 years	0.040	1.041	*.900*
6 to 11 years	0.417	1.517	*.004*
11 years or more			
Father's age at birth of study child			*.026*
Under 30	0.429	1.535	*.026*
30+			
Household socioeconomic class			*.005*
Other	-0.486	0.615	*.005*
Managerial and professional occupations			
Either parent on low income or disability benefits			*.015*
Yes	-1.060	0.346	*.015*
No			
Highest level of qualification of father			*.040*
No qualification	-0.620	0.538	*.050*
GCSEs / Standard Grades / NVQ level 2 or below	-0.698	0.497	*.003*
A levels / Highers / NVQ level 3 or equiv	-0.391	0.676	*.039*
HNC, HND, NVQ level 4 or equiv	-0.085	0.918	*.692*
Degree / NVQ level 5 or equiv			
Father's ethnic origin			*.011*
Non-white	-2.006	0.135	*.011*
White			
Child's general health, sweep 1			*.009*
Good, fair or poor	-0.508	0.602	*.009*
Very good			
Intercept	-0.665	0.514	*.000*
Sample size	*1,182*		
Nagelkerke R square	.130		

Growing Up in Scotland, child cohort, weighted, sweep 2 (unless otherwise stated)

Those who have been living together for between 6 and 11 years are more likely to be collaborative than those who have been living together for longer.

Fathers aged under 30 at the time of the birth are more likely to be collaborative than older fathers. This is slightly surprising, given no such significant association is evident when paternal age and collaboration are crosstabulated with each other. However, once other factors have been controlled, the association emerges.

When the higher wage earner is in a managerial or professional occupation, the odds of the couple being collaborative are around 60% greater than for those with other socioeconomic classifications. When either partner is in receipt of low income or disability benefits, the odds of the couple being collaborative are only around one third of those when they are not in receipt of benefits. So, while income itself does not appear as a statistically significant predictor of collaboration, it is present in these two variables.

When the father has no qualifications, or none higher than GCSE or standard grades, then the odds of him being in a collaborative relationship are only half those for fathers with a university degree, or equivalent. When he has A levels, or highers, the odds are around two thirds of those more qualified.

Non-white fathers are considerably less likely to be in a collaborative relationship than those of white ethnic groups, although, as will be discussed in chapter 8, this does not necessarily imply worse outcomes for non-white children. This demonstrates a weakness in the concept of collaboration, that it does not appear to be relevant to different cultures. The odds of parents of a child who was not in very good health at sweep 1 being in a collaborative relationship are 60% of those for parents of very healthy children.

Some of these variables are clearly associated with each other: education and social class, for example. This could potentially cause problems with the computation of coefficients. However, in this, and all subsequent models, tests for collinearity have

been conducted, and the level of association between independent variables was not deemed to be large enough to cause concern for the validity of the models.

From the variables included in the model, and others that show an association with the collaboration variable (that is not statistically significant once other variables are controlled), one can get an image of the typical collaborative couple, as being married, lived together for between 3 and 8 years before the study child was born, father aged between 25 and 29 when the child was born, with his wife of a similar age. Both are well educated. The father works full-time, in a managerial or professional occupation, while the mother works part-time. They own their own home, the children are in very good health, and they can afford most of what is considered important for a family. This, however, is simply a model, and, as can be seen from the value of Nagelkerke's R square in table 6.1, not a particularly good one. Most of the variation is not explained by the variables in the model, and not a great deal more is explained when the non-significant variables are also included. What this means is that, while some families have advantages through education and employment, almost all have the potential to be collaborative.

It is interesting to note which variables have not been included in this model. None of the area level variables were shown to have a significant association with collaborative parenting. This may be due to the limitations of these variables, to the limitations of the modelling process, or it may be that ecological theory is less important to the understanding of collaboration than was thought. An alternative model, using a classification tree algorithm, does highlight area variables as being important, with those with lower levels of education being more likely to be collaborative if they do not live in large urban areas or remote rural areas. For those educated beyond school level, the opposite is true (see appendix A6). The complexity of this association explains why it was omitted from the logistic regression model.

Also omitted from the model are any characteristics of the mother, and any differences between the mother and father. Instead, it is characteristics of the father,

the couple and the child that are included, the most statistically significant associations concerning marriage, household socioeconomic classification, and the child's health. The inclusion of variables for the characteristics of the father, rather than the mother, is due to the greater variation in the paternal data. As was discussed in chapter 2, there is an expectation that mothers are involved with their children, whereas there is greater variation in what is expected of, or done by fathers. The non-significance of differences between the couple suggests that theories using a relative resources argument to explain collaboration and non-collaboration are not well supported by the data.

6.4.4 Using the model of collaboration

In the following sections, I will be testing the associations between collaboration and a range of variables representing time availability or use, and feelings about that time. Using the control model allows the demonstration of which associations are significant because of an association between collaboration and the time variable, and which are significant because of an association between the controls and the time variable.

The models can be summarised by the following equation:

$$\ln\left[\frac{\theta}{1-\theta}\right] = b_0 + b_1 X_1 + \ldots + b_{13} X_{13} + b_{ind} X_{ind} + \varepsilon$$

Where θ = the probability of the couple being collaborative

X_1 to X_{13} are the control variables, where

X_1 = 1 if the couple are *not* married at sweep 2, else 0;

X_2 = 1 if the couple have been living together for less than 3 years at sweep 2, else 0;

X_3 = 1 if the couple have been living together for between 3 and 6 years at sweep 2, else 0;

X_4 = 1 if the couple have been living together for between 6 and 11 years at sweep 2, else 0;

X_5 = 1 if the father was aged under 30 at the birth of the study child, else 0;

X_6 = 1 if the highest earner in the household is *not* in a managerial or professional occupation, else 0;

X_7 = 1 if either parent is on low income or disability benefits, else 0;

X_8 = 1 if the father has no qualifications, else 0;

X_9 = 1 if the father's highest qualification is equivalent to GCSEs, standard grades, or NVQ level 2 or below, else 0;

X_{10} = 1 if the father's highest qualification is equivalent to A levels, highers, or NVQ level 3, else 0;

X_{11} = 1 if the father's highest qualification is equivalent to an HNC, HND, or NVQ level 4, else 0;

X_{12} = 1 if the father is of a non-white ethnic origin, else 0;

X_{13} = 1 if the study child was *not* in very good health at sweep 1, else 0;

X_{ind} is the independent variable, whose association with collaboration is being tested (different in each model):

X_{ind} = 1 if the action, activity or feeling, represented by the independent variable is mentioned, else 0;

b_0 to b_{13}, and b_{ind} are the coefficients associated with each variable, which will be different for each model

b_0 = the value of the intercept (differs for each model);

b_1 = the coefficient associated with variable X_1 (differs for each model);

…

b_{ind} = the coefficient associated with variable X_{ind} (differs for each model);

and

ε = the error term, indicating the variation in collaboration not explained by the model.

The estimated values of the coefficients are of limited interest, because of the large confidence intervals sometimes associated with them, although the exponential of the coefficient associated with each time availability variable, which is easier to interpret, is included in each table. Of greater interest is the significance level of each association. Had the models been built so that the time availability variable were the dependent one, the significance level of the association between collaboration and the time availability variable would not change by much, although the coefficients and the significance levels of the other variables would be quite different. There is no need to introduce further controls which predict each of the time availability variables, as these should be independent of collaboration. While they may improve the specification of each model, this is again of little interest.

Each subsequent table shows whether the relationship between collaboration and the time availability variable is significant, both when no controls are applied, and when all the controls included in the model above are applied. Details of how to read these tables, and how to interpret each of the measures of statistical significance, and the associated exponentiated coefficients are provided in section 4.6.4.

6.5 Measuring social support in GUS

For the purposes of this and the next chapter, having readily available social support is defined in terms of it being easy to leave the study child with someone else. Three questions were asked in sweep 1 of the study for this purpose:

> *If you needed to do any of the following things, how easy or difficult would it be to find someone to help you out at short notice – for example, in an emergency of some kind?*
> *... leave {childname} with someone for a couple of hours during the day*
> *... leave {childname} with someone for a whole day*
> *... leave {childname} with someone overnight*

Respondents were asked to provide an answer to each ranging from very easy to very difficult. Unprompted responses of "would never do this" were also accepted. If the answer to all three questions was "very easy" or "fairly easy", support was determined as readily available.

	Yes	No	*Sample size*	*Missing*
Support readily available	51%	49%	*1,270*	*1*

It should be noted that this variable does not capture the same concept as that described in the previous chapter. Firstly, it only looks at available support, not whether the support is used. Secondly, it does not consider the size of the support network. Thirdly, it only considers one specific type of support, and ignores others, including leaving the child with someone not at short notice, or getting information or emotional support. Limitations of the GUS data mean that a broader measure of social support cannot be operationalised.

6.6 Findings

6.6.1 Employment

6.6.1.1 Perceived impacts of employment on family life and family life on employment

Table 6.2 demonstrates the perceived impacts of employment on family life and of family life on employment.

Table 6.2 Perceived impacts of employment on family life and family life on employment (mean scores)

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Mean score: Perceived impact of employment on family life scale (low = positive, high = negative)												
Mother, sweep 2	6.70	6.94	7.45	7.96	7.45	*824*		**	**	*	0.91	0.93
Father, sweep 2	7.61	7.98	8.56	8.92	8.51	*1,172*		**	**	**	0.90	0.90
Respondent, sweep 4	6.66	7.03	6.96	7.19	7.01	*866*		-	-	-	0.97	0.97
Mean score: Perceived impact of family life on employment scale (low = minimum, high = maximum)												
Mother, sweep 2	2.59	3.20	2.73	3.16	2.91	*824*		**	-	-	0.96	0.96
Father, sweep 2	2.67	2.83	3.13	3.14	3.04	*1,182*		**	**	**	0.83	0.84
Respondent, sweep 4	2.71	3.43	2.87	3.09	2.98	*865*		**	-	-	1.01	0.99
Mean number of hours worked (parents in employment)												
Mother, sweep 2	25.7	26.9	25.7	24.6	25.5	*837*		-	-	-	1.01	1.00
Father, sweep 2	43.8	44.1	44.9	43.9	44.3	*1,177*		-	-	-	1.00	0.99
Mother, sweep 4	25.7	27.4	25.7	25.2	25.7	*919*		-	-	-	1.01	1.00
Father, sweep 4	43.1	43.8	43.8	43.5	43.6	*1,138*		-	-	-	1.00	0.99
Sample size	*167*	*121*	*449*	*445*	*1,182*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above

Growing Up in Scotland, child cohort, sweeps 2 and 4

The first two rows of table 6.2 show that, at sweep 2, both collaborative mothers and collaborative fathers on average perceive a more positive impact of their employment on their family life than non-collaborative mothers and fathers do, even though the hours they work are roughly the same. (If all parents were included in the analysis, rather than just those in employment, collaborative mothers would work on average 3 to 4 hours more each week than non-collaborative ones.) These differences remain statistically significant when the socioeconomic factors previously discussed are controlled. This is in line with what has already been said about employment in chapter 5. The ability of Alan Ogilvie to reduce the negative impact of his employment on his home life is in stark contrast to the difficulties the less collaborative Michael Clark has had doing the same.

For these two measures, the values for non-collaborators without support are the highest, implying that the impact of employment on home life for this group is particularly large. This group will be highlighted repeatedly over the course of this and the next chapter as the one which has the greatest problems not only from the impact of employment, but also finding time and enjoying time, and accessing or implementing advice.

Of course, perceived impact does not necessarily equate to actual impact. While collaborative parents working similar hours in similar jobs as non-collaborative parents may perceive less of a negative impact, this does not mean the impact is any less negative. Talking about such things with one's partner may help a parent feel better about the time they spend away from the family, but, as will become evident in chapter 8, the relationship between collaboration, employment and child outcomes is not totally straightforward.

By sweep 4, data is no longer available for fathers, just for the "main carer", who, in 99% of cases, is the mother. At this stage, the differences between the groups have almost disappeared. This is most probably because the children have all started school by sweep 4, when they are aged around 5 years and 10 months. During term-time at least, mothers are more likely to feel able to work the average of 25 or 26

hours a week without worrying that their children are being negatively impacted by this.

The perceived impact of family life on a father's employment follows a similar pattern. Collaborative fathers perceive less of a negative impact than non-collaborative ones. The impact on a mother's employment, however, appears to be much more strongly associated with available support than with a couple's ability to collaborate. This is not really surprising, as among both collaborative and non-collaborative couples, the mother is much more likely to take the main responsibility for childcare, to try and fit work around the children, and be the one who works fewer hours. If the mother can pass some of this responsibility onto the child's grandparents, or other friends or relatives, the impact on her own work is likely to be less.

The findings appear to support the hypothesis that collaboration between parents decreases the perceived impact of work on family life and vice-versa, but not in all circumstances. Associations are stronger for men than for women. Advantages to the mother are only evident in reducing the impact of work on family life, and only when the child is below school age, when the risk of work impacting on the family is greatest.

6.6.1.2 Family friendly employment policies

The policies of employers may be able to help address some of the impact of work on family life. Table 6.3 lists a number of family friendly policies sometimes available to employees. In all cases, collaborative fathers, particularly internally collaborative ones, are more likely to state that they work for an employer who offers such a policy. Patterns for mothers are very similar. This is partly a result of the type of employment collaborative parents are more likely to have, as once controls are introduced, differences between the groups are reduced. However, some differences are still statistically significant.

Table 6.3 Family-friendly employment practices, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Partner: Employer gives subsidised childcare								*	*	-		
Yes	5.1%	9.4%	2.8%	4.3%	4.4%	*48*		*	*	-	1.95	1.57
No	94.9%	90.6%	97.2%	95.7%	95.6%	*985*		*	*	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Partner: Employer has workplace creche / nursery								**	**	*		
Yes	7.0%	12.9%	3.2%	5.2%	5.5%	*57*		**	**	*	2.30	1.76
No	93.0%	87.1%	96.8%	94.8%	94.5%	*976*		**	**	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Partner: Employer allows working of flexible hours								*	*	-		
Yes	38.5%	45.9%	30.3%	31.8%	33.6%	*357*		*	*	-	1.57	1.30
No	61.5%	54.1%	69.7%	68.2%	66.4%	*676*		*	*	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Partner: Employer provides extra paid leave if child sick								**	**	*		
Yes	43.1%	53.9%	37.2%	35.3%	38.9%	*402*		**	**	*	1.57	1.35
No	56.9%	46.1%	62.8%	64.7%	61.1%	*631*		**	**	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Partner: Employer allows paid time off in school holidays								*	*	-		
Yes	14.6%	18.9%	9.8%	10.6%	11.7%	*125*		*	*	-	1.69	1.52
No	85.4%	81.1%	90.2%	89.4%	88.3%	*908*		*	*	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Partner: Employer allows working from home at times								**	**	-		
Yes	23.6%	36.5%	16.2%	20.8%	21.0%	*224*		**	**	-	1.77	1.15
No	76.4%	63.5%	83.8%	79.2%	79.0%	*809*		**	**	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Number of family-friendly arrangements available to partner								**	**	*		
3 or more	44.3%	58.7%	33.4%	37.0%	38.8%	*410*		**	**	*	1.84	1.39
2 or fewer	55.7%	41.3%	66.6%	63.0%	61.2%	*623*		**	**	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Number of family-friendly arrangements available to respondent								**	**	*		
3 or more	42.7%	50.5%	31.8%	34.8%	36.4%	*328*		**	**	*	1.72	1.51
2 or fewer	57.3%	49.5%	68.2%	65.2%	63.6%	*555*		**	**	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*883*						
Partner uses at least one family friendly arrangement								**	**	-		
Yes	61.3%	72.5%	53.3%	55.1%	57.0%	*591*		**	**	-	1.62	1.41
No	38.7%	27.5%	46.7%	44.9%	43.0%	*442*		**	**	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,033*						
Respondent uses at least one family friendly arrangement								-	*	-		
Yes	72.0%	76.1%	64.6%	65.2%	67.1%	*600*		-	*	-	1.52	1.30
No	28.0%	23.9%	35.4%	34.8%	32.9%	*283*		-	*	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*883*						
Sample size	*154*	*100*	*374*	*405*	*1,033*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above

Growing Up in Scotland, child cohort, sweep 2

The number of different family friendly arrangements available to both mothers and fathers at their place of employment does have a statistically significant association with collaboration, even when controlling for socioeconomic status (and other factors). This could indicate either that collaborative parents are more aware of what is available to them, or that the availability of family friendly arrangements enables collaboration by allowing employees to fit work around their family. If 3 or more different arrangements were available to the respondent, the odds of her being in a collaborative relationship were 70% greater than if fewer arrangements were in place (50% after controls were applied). The odds of her partner acting collaboratively were 80% greater if such arrangements were available to him (40% after controls applied).

Two particular types of family friendly arrangement at the father's place of work show significant associations with collaboration, even when controls are applied. These are the provision of a workplace nursery or crèche, and the provision of extra paid leave if the child is sick. All of the other arrangements show significant associations when no controls are applied.

Family friendly arrangements are not used by everyone to whom they are available. The number of arrangements used by collaborative parents is not significantly different from the number used by non-collaborative ones, when controls are applied. Certain types of scheme are used significantly more by internally collaborative fathers. Such fathers are more likely to use a workplace crèche, although only 6% do (around half of those for whom this was available), compared to 1.4% of all fathers in the survey. Internally collaborative fathers are also more likely to take advantage of subsidised childcare, but the numbers are similarly small.

The final column in table 6.3 shows the exponential of the coefficient associated with the listed arrangement or use of that arrangement in the logistic regression model for collaboration, with the previously mentioned controls applied. These are all between 1.15 and 1.76, meaning that if the particular arrangement is available (or used), the odds of the couple being collaborative are between 15 and 76% greater than if it is

not available (or used). Of course, all of these figures are estimates based on the sample, and so have associated confidence intervals. Only those highlighted as being statistically significant (column Sig 3) have a lower 95% confidence limit that exceeds 1.

It could reasonably be argued that availability of family friendly working arrangements makes no difference if they are not used. While the coefficients for use of at least one arrangement exceed 1, although the confidence intervals do not, there is some weak evidence that use of arrangements may lead to collaboration. The higher values of the coefficients for the availability of at least 3 arrangements imply that collaborative parents may also be more likely to be aware of arrangements, even if they are not used. The figures therefore suggest that causality may go in both directions, with collaborative parents being more likely to be aware of arrangements, and the use of arrangements, which is dependent on their availability, enabling collaboration.

6.6.2 Feelings about amount of time with the child

In the previous chapter, it was suggested that collaboration helps couples to feel content with the choices they have made regarding how they divide their time. Table 6.4 shows that this appears to be partially true for fathers, but there is little evidence to support this claim for mothers. It should be noted that the qualitative interviews took place when the children were of school age, whereas the data presented in table 6.4 represents the pre-school period. This may account for the differences in findings between the methods.

Table 6.4 Feelings about time with children, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Respondent's feelings about time with child								-	-	-		
Plenty of time	42.3%	30.9%	39.3%	42.1%	40.0%	*491*	c	-	-	-	0.89	1.07
Just enough time	21.9%	30.1%	20.8%	22.0%	22.3%	*285*	c	-	-	-	1.04	1.17
Not quite enough time	29.5%	29.0%	31.3%	27.5%	29.3%	*383*	c	-	-	-	1.10	1.17
Nowhere near enough time	6.3%	10.0%	8.7%	8.4%	8.3%	*111*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Partner's feelings about time with child								-	-	*		
Plenty of time	23.9%	13.9%	20.3%	17.3%	19.0%	*241*	c	-	-	**	1.07	1.51
Just enough time	20.3%	25.0%	21.9%	20.5%	21.4%	*269*	c	-	-	*	1.08	1.30
Not quite enough time	38.7%	48.0%	38.3%	45.4%	42.1%	*537*	c	-	-	-	1.20	1.26
Nowhere near enough time	17.2%	13.2%	19.4%	16.8%	17.5%	*223*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Not enough time with children because respondent works								*	**	-		
Mentioned	86.8%	79.8%	75.1%	69.3%	74.9%	*372*		*	**	-	1.99	1.55
Not mentioned	13.2%	20.2%	24.9%	30.7%	25.1%	*120*		*	**	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*492*						
Partner: Not enough time with children because works long hours								-	*	*		
Mentioned	53.1%	46.2%	61.5%	58.8%	57.8%	*440*		-	*	*	0.66	0.65
Not mentioned	46.9%	53.8%	38.5%	41.2%	42.2%	*320*		-	*	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*760*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable, so significant differences based on cumulative percentages - no significance calculated for final category as meaningless

Growing Up in Scotland, child cohort, sweep 2 (unless otherwise stated)

Table 6.4 shows that there were no significant differences between the groups in terms of whether the respondents felt they had enough time with their children, with around 40% feeling they had plenty of time, and a similar proportion not enough time. There were also no immediately obvious differences between the groups when the partners' feelings were considered, with around 20% each saying they had plenty of time and just enough time, and the rest not enough time. However, once controls were put in place, collaborative partners were actually significantly more likely to say they had plenty of time or enough time. While there is a tendency for those in more managerial or professional positions to feel they miss out on family life, collaboration appears to reduce the impact of this.

Collaborative respondents who felt they were short of time with their children were slightly more likely to mention that this was because they worked, while their partners (nearly all of whom worked) were actually less likely to mention working long hours than their non-collaborative counterparts, a finding which was again significant when controls were in place. In table 6.2 it was shown that fathers in general worked longer hours than mothers, and collaborative fathers tended to work a similar number of hours to non-collaborative ones. However, table 6.4 shows that collaboration appears to reduce the impact these long hours have on time with the children.

6.6.3 Parental leisure time

While the majority of working respondents expressed a desire to work less, in order to spend time with their children, and a majority of their partners expressed feelings of missing out on time with the children, there is still a desire among most parents to have some time either for themselves or with their partner. This was partly discussed in the previous chapter. Table 6.5 shows that externally collaborative respondents are more likely to be able to get time away from the children in order to do something for their own interest. External collaborators are also more likely to go out as a

couple than the other groups, possibly because they find it relatively easy to leave the children with someone, and because they are more likely to have sufficient income than the non-collaborators with support. The differences between collaborators and non-collaborators are significant, even when controls are applied, suggesting that they are due to more than simply income and childcare. When the respondent had time away from her children to do something for her own interest at least once a week, the odds of her being in a collaborative relationship were 50% greater. When she never had this opportunity, the odds of her being in a non-collaborative relationship were 70% greater. The odds of couples who hardly ever or never went out together being collaborative were greater still.

Again, it is the non-collaborators without support who can be highlighted as having very limited leisure opportunities. Table 6.5 shows that a quarter of the respondents in this category never had time away from their children to do something for their own interest, and 40% hardly ever or never went out as a couple.

Couples vary in the amount of time with and without the children they desire, and no evidence has been provided to suggest that time away from the children is a better use of time than time with the children, just that collaborative couples are more likely to spend time away from the children, with each other or doing something for their own interest. The interviews provide further insight into how couples find time to spend together.

Early children's bedtimes open up time in the evenings for parents, as well as being defensible in terms of the benefits to children (Mindell et al., 2009). Of the six couples classed as individual actors, only two of them had consistently enforced bedtimes, and for one of those two, it was only the mother who was able to put the children to bed without too much fuss. Other parents would occasionally allow children to stay up later, particularly during school holidays, but in general, the study child (aged 7 or 8 at the time of the interviews) always had a fixed bedtime, most commonly between 7:30 and 8pm.

Table 6.5 Parental leisure time, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of time away from children to do something for own interest, sweep 1								**	*	-		
At least once a week	34.9%	30.1%	28.9%	23.4%	27.6%	*348*	c	*	-	*	1.39	1.51
At least once a month	27.7%	18.8%	25.4%	20.1%	23.0%	*297*	c	**	*	-	1.38	1.33
At least once every 2 months	14.0%	11.6%	12.2%	13.1%	12.8%	*163*	c	**	*	-	1.45	1.27
Less often	16.6%	23.4%	17.9%	20.1%	19.1%	*247*	c	**	**	*	1.99	1.70
Never	6.8%	16.2%	15.7%	23.2%	17.5%	*215*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
How often respondent and partner go out								**	**	*		
Once a week or more	9.3%	4.8%	6.1%	8.0%	7.2%	*88*	c	-	-	-	1.05	1.18
Once a month or more	34.7%	31.3%	32.3%	20.7%	27.9%	*354*	c	**	*	*	1.37	1.34
Less often	37.5%	42.1%	33.0%	28.5%	32.7%	*420*	c	**	**	**	2.28	1.78
Hardly ever / never	18.5%	21.8%	28.6%	42.8%	32.2%	*400*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable, so significant differences based on cumulative percentages - no significance calculated for final category as meaningless

Growing Up in Scotland, child cohort, sweep 2 (unless otherwise stated)

Inconsistencies in bedtimes arose for a number of reasons: a belief that there was no problem allowing the children to stay up later; a lack of agreement on what is an appropriate time; neither parent taking responsibility for enforcing bedtimes; parents who kept their children up, as they worked long hours and wanted to see them; or children who were unwilling to go to bed when asked.

Getting the children to bed, or at least into their bedrooms, early was seen by some couples as a way of creating time for themselves. The Turnbulls, for example, an internally collaborative couple, would see very little of each other without the children if they did not enforce an early bedtime, as Marian Turnbull works at weekends, and Dennis often works long hours during the week. They recognize the need to spend time together, and prioritise that over time on their own. Dennis Turnbull:

> Mr T But, we always have a couple of hours at night. We've always made time to spend time with each other. And then we always, a couple of times a year, we'll always book a hotel, even in Edinburgh. See if there's a cheap deal, we'll book a hotel, we'll have a night out, maybe have a meal, but we'll stay at a hotel, just coz if you come home, sometimes you'll feel that you come home, and maybe feel that you tidy up, and then you'll get up in the morning, and you don't enjoy the long lie, coz you think maybe I should start the washing, or I should do this, or clean the van. So, we do that a lot, which I think is good. And people don't understand it, they think it's a waste of money. But to me, it's time well spent, money well spent on time together.

The Turnbulls make conscious efforts to spend time together, and give the impression that they very much enjoy that time. For those with a large support network, leisure time is easier to come by, but the Turnbulls demonstrate that time is still available to those without.

It should be remembered, though, that the interviews took place when the children were around 8 years of age, whereas the GUS data in table 6.5 is from four or five years earlier. This does have a large effect on leisure time. Several couples commented that time for themselves, individually or together, had been hard to come

by in the early years, but now that the children were older, it was easier to leave them with babysitters, with one parent, or to play by themselves, while the parents got on with other things. Mrs Ogilvie, for example:

Mrs O "Now I think I'm getting more time on myself. I took up running a few years ago, and I do other sporting things, and that's my kind of time on my own. […] But I would say, definitely when they're wee, or when they're under five, or when they're just starting school, that's a difficult time to get time on your own.

As was seen in the last chapter, many of the less collaborative couples without support still struggled to find leisure time, often because of the impact of one parent's employment.

6.6.4 Frequency of activities with child

Table 6.6 shows the frequency with which a child, aged 3 years and 10 months, has undertaken various activities, and whether the father had been involved with those activities over the previous week. It shows that most children look at books on most days of the week. However, children of collaborative parents, particularly internal collaborators, are significantly more likely to have done so on at least six of the last seven days. This finding is independent of the socioeconomic controls. The coefficient from the regression model suggests that if a child has read on at least six of the last seven days, the odds of her parents being collaborative are around three times the odds of them being collaborative if she has not read as frequently.

Table 6.6 Frequencies of activities with child, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of reading / looking at books in last week								**	**	**		
At least 6 days	91.7%	96.7%	82.2%	81.8%	84.7%	*1,083*		**	**	**	3.30	2.70
5 days or fewer	8.3%	3.3%	17.8%	18.2%	15.3%	*186*		**	**	**		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,269*						
Frequency of playing outdoors in last week								-	*	-		
At least 6 days	69.0%	66.6%	61.7%	60.7%	62.8%	*801*		-	*	-	1.36	1.13
5 days or fewer	31.0%	33.4%	38.3%	39.3%	37.2%	*467*		-	*	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,268*						
Frequency of painting or drawing in last week								-	*	*		
At least 6 days	47.4%	42.2%	36.0%	38.6%	39.1%	*498*	c	-	**	**	1.38	1.45
3 to 5 days	41.8%	44.5%	48.9%	44.8%	45.9%	*585*	c	-	-	-	1.42	1.46
2 days or fewer	10.8%	13.3%	15.1%	16.7%	15.0%	*185*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,268*						
Frequency of reciting nursery rhymes or singing songs in last week								-	-	-		
At least 6 days	71.4%	72.1%	70.6%	63.9%	68.2%	*859*		-	-	-	1.22	1.33
5 days or fewer	28.6%	27.9%	29.4%	36.1%	31.8%	*408*		-	-	-		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,267*						

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of playing at recognising letters, words, numbers or shapes with child								-	-	-		
At least 6 days	47.6%	51.9%	44.2%	37.9%	42.9%	*541*	c	*	*	*	1.40	1.40
3 to 5 days	38.0%	34.2%	39.1%	42.5%	39.8%	*505*	c	-	-	-	1.35	1.34
2 days or fewer	14.4%	13.9%	16.7%	19.6%	17.3%	*219*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,265*						
Activities with father in last week (if done activity)												
Read / looked at books	88.4%	92.9%	73.4%	71.7%	76.6%	*1,268*		**	**	**	3.51	2.85
Played outdoors	56.3%	54.1%	49.0%	48.3%	50.2%	*1,218*		-	*	-	1.30	1.06
Painted or drew	26.5%	34.8%	21.8%	23.0%	24.1%	*1,241*		*	*	-	1.46	1.31
Sang or recited nursery rhymes	52.1%	65.3%	48.3%	45.8%	49.4%	*1,246*		**	**	*	1.52	1.40
Played at recognising letters, words, etc.	55.3%	55.4%	45.5%	39.8%	45.6%	*1,211*		**	**	**	1.66	1.51
Sample size	*175*	*123*	*474*	*497*	*1,269*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable, so significant differences based on cumulative percentages - no significance calculated for final category as meaningless

Growing Up in Scotland, child cohort, sweep 2

Children of collaborative couples were more likely to have painted or drawn on at list six of the last seven days, and more likely to have played at recognising letters, numbers, words or shapes. Again these findings are independent of the controls. In fact, children of collaborative parents were also more likely to have played outdoors on most days in the last week, and recited nursery rhymes or sang songs on most days, although these differences were not statistically significant. For all of these activities to be more common among children of collaborative parents, either there is a difference in what the respondent knows about the child's activities, with non-collaborative parents being less aware of what the child is doing at nursery or with the other parent, and hence not reporting it, or there is a genuine difference in the frequency with which the child does each activity, and probably also the range of activities a child does each day.

When one looks at whether the father has undertaken each of the activities with the child over the previous week, it can be seen that collaborative fathers are significantly more likely to be involved in most of the activities, particularly the more educational ones, looking at books and playing at recognising letters, words, numbers and shapes. Collaborative mothers are also significantly more likely to be involved in reading with their child and with painting or drawing with him or her.

However, it is not just the parents who are significantly more likely to be involved. Children of collaborative parents are also more likely to read on their own, or with childcare staff, children of internal collaborators are more likely to read with another child, generally a sibling, and children of external collaborators with a grandparent. These patterns are fairly consistent across the different activities. Thus, there appears not just to be greater involvement from the parents, particularly the father, when the couple are collaborative, but also greater awareness of what the child has been doing.

The interview transcripts showed that collaboration is more than just about paternal involvement. Most of the fathers interviewed spent a lot of time with their children, but the less collaborative parents did not always agree about the best way to spend

that time. Julie Kemp, for example, commented on the way her partner spends so much time with their son trying to help him get ahead at school:

> Miss K No, he goes OTT. He's really quite… goes on and on and on about it, but... and really pushes Callum. But I don't want to push him to the extent where it's not fun, it's nagging. Because I had that as a child and it's not very nice. […] I've got to rein him back a bit. […] I wouldn't do that, but you have to obviously let them know that you do expect them to work, but not so that it's a bit of a chore and they feel under pressure, because that's not very good for them.

The two sets of data combine, to give a picture not just of fewer constructive activities between the less collaborative parents and their children, but also less agreement about what type of activities to do.

One could also look at less frequent activities (table 6.7), and find a similar pattern of children of collaborative couples doing more activities. Once socioeconomic controls have been considered, many of the differences between collaborative and non-collaborative parents are still significant.

After controlling for education, socioeconomic status, and other factors, children (aged 3 years 10 months) of collaborative parents are significantly more likely to have visited a library at least once in the last 12 months; significantly more likely to go to a swimming pool at least once a month; significantly more likely to go to a museum, gallery or historical site every few months; significantly more likely to go to a zoo aquarium or farm every few months, or at least once; significantly more likely to go to the cinema at least once a month or every few months; significantly more likely to go to an athletic or sporting event at least once a month, every few months or at least once; and significantly more likely to go to a religious service or event at least every few months, or at least once. In fact, differences in the frequency of going to a live performance are the only ones of the listed activities fully explained by the socioeconomic controls.

Table 6.7 Frequency of activities with child, by collaboration and support (2)

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of visiting library over last 12 months								**	**	-		
At least once a week	9.9%	14.7%	10.1%	13.3%	11.7%	*146*	c	-	-	-	1.04	1.08
At least once a month	38.4%	30.9%	25.2%	27.8%	28.6%	*370*	c	*	*	-	1.45	1.23
At least once	27.7%	32.9%	28.8%	25.7%	27.8%	*356*	c	**	**	*	1.77	1.44
Not at all	24.1%	21.5%	36.0%	33.2%	31.9%	*398*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of going to live performance over last 12 months								**	**	-		
At least once a month	3.6%	3.1%	2.6%	1.8%	2.5%	*32*	c	-	-	-	1.56	1.21
Every few months	33.5%	32.8%	23.9%	22.3%	25.4%	*329*	c	**	**	-	1.70	1.33
At least once	40.3%	33.6%	43.8%	38.5%	40.3%	*519*	c	**	*	-	1.46	1.07
Not at all	22.6%	30.5%	29.7%	37.4%	31.8%	*390*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of going to swimming pool over last 12 months								**	**	-		
At least once a week	34.9%	36.6%	29.4%	23.2%	28.4%	*370*	c	**	**	-	1.55	1.31
At least once a month	36.4%	33.8%	29.7%	29.5%	30.9%	*393*	c	**	**	**	1.94	1.62
At least once	21.7%	24.7%	31.1%	30.6%	29.0%	*366*	c	**	**	-	2.38	1.46
Not at all	6.9%	4.8%	9.8%	16.6%	11.7%	*141*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of visiting museum, gallery or historical site over last 12 months								**	**	-		
At least once a month	10.5%	18.0%	8.5%	7.3%	9.2%	*118*	c	**	**	-	1.83	1.52
Every few months	26.1%	27.5%	17.5%	22.4%	21.5%	*278*	c	**	**	*	1.73	1.44
At least once	17.9%	18.4%	18.8%	17.9%	18.3%	*240*	c	**	**	-	1.63	1.29
Not at all	45.5%	36.2%	55.2%	52.3%	51.0%	*634*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of visiting zoo, aquarium or farm over last 12 months								**	**	**		
At least once a month	12.8%	13.9%	7.6%	9.2%	9.5%	*123*	c	-	*	-	1.66	1.48
Every few months	33.8%	43.6%	30.6%	31.7%	32.7%	*424*	c	**	**	*	1.60	1.31
At least once	44.1%	32.5%	40.7%	35.0%	38.2%	*478*	c	**	**	**	2.77	2.63
Not at all	9.3%	10.0%	21.1%	24.1%	19.6%	*245*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of visiting cinema over last 12 months								**	**	*		
At least once a month	6.4%	9.5%	6.5%	4.1%	5.8%	*69*	c	-	-	*	1.50	1.88
Every few months	34.5%	38.3%	28.0%	24.2%	28.4%	*365*	c	**	**	**	1.70	1.62
At least once	28.9%	21.9%	29.8%	29.0%	28.6%	*367*	c	**	**	-	1.51	1.30
Not at all	30.2%	30.2%	35.7%	42.8%	37.3%	*469*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Frequency of visiting athletic or sporting event over last 12 months								-	**	**		
At least once a month	8.9%	8.3%	4.9%	5.6%	6.1%	*76*	c	-	-	*	1.69	1.92
Every few months	8.7%	13.9%	5.7%	6.4%	7.1%	*93*	c	**	**	**	1.88	2.14
At least once	14.1%	14.3%	15.4%	16.3%	15.5%	*203*	c	-	-	*	1.35	1.39
Not at all	68.4%	63.5%	74.0%	71.7%	71.3%	*897*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,269*						

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of going to religious service or event over last 12 months								**	**	*		
At least once a week	19.7%	11.1%	10.2%	12.2%	12.4%	*161*	c	*	*	-	1.52	1.10
At least every few months	20.6%	22.3%	14.3%	13.5%	15.6%	*203*	c	**	**	**	1.78	1.47
At least once	17.9%	17.7%	15.6%	15.9%	16.3%	*211*	c	**	**	*	1.78	1.40
Not at all	41.7%	48.9%	59.8%	58.3%	55.8%	*695*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Whether father present last time child went to following places (if been in last 12 months):												
Library	15.8%	15.3%	16.6%	17.5%	16.7%	*872*		-	-	-	0.89	0.84
Live performance	47.1%	62.3%	42.0%	46.0%	46.2%	*880*		*	*	-	1.42	1.29
Swimming pool	68.3%	65.2%	63.5%	67.9%	66.0%	*1,129*		-	-	-	1.07	0.97
Museum, gallery or historical site	65.7%	87.6%	67.2%	72.8%	71.6%	*636*		**	-	-	1.31	1.34
Zoo, aquarium or farm	75.1%	78.9%	74.8%	71.2%	73.9%	*1,025*		-	-	-	1.20	1.06
Cinema	69.9%	65.2%	61.1%	65.9%	64.6%	*801*		-	-	-	1.23	1.02
Athletic or sporting event	77.2%	79.3%	60.8%	66.8%	67.8%	*372*		-	**	**	2.01	2.08
Religious service or event	62.5%	70.2%	52.6%	57.0%	57.9%	*575*		-	*	-	1.56	1.40
Whether both parents present last time child went to following places (if been in last 12 months):												
Library	6.6%	7.6%	8.1%	7.9%	7.7%	*872*		-	-	-	0.87	1.00
Live performance	42.5%	62.3%	39.9%	42.5%	43.3%	*880*		**	*	-	1.42	1.32
Swimming pool	45.1%	45.3%	43.9%	48.1%	45.8%	*1,129*		-	-	-	0.98	0.93
Museum, gallery or historical site	57.2%	80.7%	58.7%	67.0%	64.3%	*636*		**	-	-	1.20	1.16
Zoo, aquarium or farm	71.1%	74.8%	66.8%	64.0%	67.2%	*1,025*		-	-	-	1.39	1.25
Cinema	54.1%	54.6%	50.9%	50.6%	51.6%	*801*		-	-	-	1.14	1.03
Athletic or sporting event	47.3%	58.4%	37.0%	46.0%	44.6%	*372*		-	*	*	1.52	1.56
Religious service or event	56.9%	68.8%	48.7%	52.2%	53.6%	*575*		-	*	-	1.56	1.41
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable, so significant differences based on cumulative percentages - no significance calculated for final category as meaningless

Growing Up in Scotland, child cohort, sweep 2

Looking at who went with the child on the last time they did a particular activity, one can see that the smaller sample sizes for those activities done by fewer children in the previous year mean that differences are less likely to be statistically significant. However, there are still significant differences in whether the father was present for four of the activities. Internally collaborative fathers were more likely to go with their child to a live performance, or to a museum, gallery or historical site, and all collaborative fathers were more likely to go with them to an athletic or sporting event, or a religious service or event. Once controls are applied, the only significant association is for athletic or sporting events. The same pattern can be seen when the presence of both parents is examined.

While the evidence in favour of children of collaborative parents doing most of the listed activities more frequently than other children is clear, this does not really answer the research question set out at the beginning of this chapter. What was asked was whether collaboration is associated with more time being available for family activities. The final sections of table 6.7 need to be interpreted in light of the fact that they refer only to the most recent occasion. With the exception of visiting the library or the swimming pool, the exponentiated coefficients are greater than 1 for all the activities. Combining this with the evidence in the rest of the table that the activities are more frequent for children of collaborative parents, it is clear that activities done with the father, or with both parents, are more common when the parents are collaborative. Hence there is an association between collaboration and time available for family activities.

6.6.5 Mealtimes

Mealtimes are one area of daily life where there are significant differences between internal and external collaborators, although an overall association with collaboration can also be seen. External collaborators are much more likely than the other groups to find mealtimes with the child (age 4 years and 10 months) enjoyable, even when

controlling socioeconomic factors. Similar patterns can be seen when the respondent was asked about mealtimes providing time to talk. In fact, after applying controls, if mealtimes with the child are found to be enjoyable quite often or most of the time, the odds of the parents being collaborative are twice as great. If they find mealtimes give them time to talk, the odds of them being collaborative are three times as great.

It has already been suggested that external collaborators find more time for leisure activities, and the support they receive gives them extra time to enjoy things, and this appears to be another example of external collaborators enjoying an activity with their children, rather than treating it as a task that has to be completed. External collaborators are also the least likely to say that mealtimes are often a rush, although non-collaborators with support are actually significantly more likely to say mealtimes are never a rush, possibly because children in such households are regularly eating at a grandparent's home, are less likely to have after-school activities than collaborative parents, and are less likely to wait until their father gets home before they eat.

Non-collaborators without support are the most likely to eat without their father, and when controls are applied collaborative fathers are significantly more likely to eat with their children. Collaborative families are also significantly more likely to eat in the kitchen, dining room, or a combined living room and dining room. Over a quarter of children of non-collaborative parents actually ate their main meal in the living room or bedroom, compared to around 12% of children of collaborative parents. This may partly be due to families on lower incomes having less space, but the differences were still significant when controls were applied.

Table 6.8 Mealtimes, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Mealtimes with child are enjoyable, sweep 3								**	**	**		
Mostly	63.9%	50.4%	49.0%	45.7%	49.9%	*631*	c	**	**	*	1.55	1.36
Quite often	24.8%	31.4%	28.0%	25.9%	27.1%	*343*	c	**	**	**	2.11	1.93
Occasionally	11.4%	17.2%	21.1%	26.5%	21.6%	*265*	c	-	-	-	5.04	3.20
Never	0.0%	0.9%	1.8%	1.8%	1.5%	*17*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,256*						
Mealtimes are a rush, sweep 3								**	**	**		
Mostly	0.7%	1.9%	1.6%	4.8%	2.7%	*33*	c	**	-	-	0.37	0.45
Quite often	7.1%	9.4%	12.2%	14.7%	12.2%	*151*	c	**	**	**	0.51	0.49
Occasionally	66.1%	70.0%	53.2%	52.8%	56.4%	*719*	c	*	*	-	1.46	1.29
Never	26.1%	18.7%	33.0%	27.8%	28.6%	*353*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,256*						
Mealtimes give time to talk, sweep 3								**	**	**		
Mostly	71.3%	52.8%	56.6%	50.0%	55.6%	*704*	c	**	**	*	1.56	1.33
Quite often	24.1%	37.7%	25.4%	29.5%	28.0%	*354*	c	**	**	**	3.40	2.90
Occasionally	3.8%	9.5%	14.5%	16.9%	13.5%	*165*	c	*	*	-	8.51	4.46
Never	0.7%	0.0%	3.6%	3.6%	2.9%	*33*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,256*						
Child eats with father / male carer, sweep 3								*	*	*		
Yes	76.0%	72.2%	72.1%	65.4%	70.0%	*874*		*	*	*	1.33	1.46
No	24.0%	27.8%	27.9%	34.6%	30.0%	*361*		*	*	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,235*						
Room in which child eats main meal, sweep 3								**	**	*		
Kitchen, dining room or comb. living / dining	90.5%	85.0%	73.8%	73.9%	77.2%	*963*		**	**	*	2.68	1.81
Living room or bedroom	9.5%	15.0%	26.2%	26.1%	22.8%	*263*		**	**	*		
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,226*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable, so significant differences based on cumulative percentages - no significance calculated for final category as meaningless

Growing Up in Scotland, child cohort

6.7 Conclusion

In this chapter I wished to consider whether collaboration between parents is associated with more time being available for leisure and for family activities, and with less of a perceived impact of work on family life and vice-versa. Evidence that supported both of these hypotheses was provided. Collaborative parents had more opportunity to spend time away from the children on leisure activities. The children appeared to be provided with a greater range of activities, including more whole family activities. Collaborative parents felt less of an impact of work on the family, and collaborative fathers less of an impact of family on their employment.

Two further stories emerge from this chapter. One is that collaboration is more likely to be determined by the father, and to benefit the father. This does not mean that fathers have control over their households, but that employment impacts on parents, and fathers tend to spend more time at work. The second is that non-collaborative couples who have little support from outside the home are the most affected by a perceived lack of time.

The appearance of the father's age, the father's education and the father's ethnic origins in the control model, rather than the mother's, emphasise the importance of considering the father when examining parenting. One weakness of the Growing Up in Scotland study is that the father, or more precisely, the partner of the main carer, was only interviewed at sweep 2. For some variables, such as education, it is quite acceptable to get updates on the father's education from the mother in subsequent sweeps. For others, however, such as his opinions on the impact of employment on family life, it is not possible to obtain information by proxy. For further studies, I would recommend fathers are interviewed more frequently. It is not really surprising that the father's characteristics appear more prominently than the mother's, as most mothers are very involved with their children. Variation in the interaction between family members is therefore more dependent on the father.

Parents are regularly faced with choices about how to prioritise different parts of their lives: time at work, time with their children, time with their partner, and time on their own or with friends. Among working parents, average time spent at work was 44 hours for men and 26 hour for women at both sweeps 2 and 4, with very little variation between the groups being studied. Collaborative fathers, however, saw significantly less of an impact of either home life on employment, or employment on the family, than their non-collaborative counterparts. For working mothers, only the latter difference was significant, and to a lesser extent. The impact of employment on family was also smaller for mothers, not surprisingly, as they tended to work fewer hours. This poses questions as to whether there is more to gain by encouraging fathers to take advantage of family friendly employment policies, rather than mothers. Collaborative fathers were actually significantly more likely than their non-collaborative counterparts of a similar socioeconomic status to work somewhere with a workplace nursery or crèche, or to be offered extra paid leave if their child was sick. The direction of any causality is not at all clear, however. It could be that a father can become more involved with his family by taking advantage of family friendly policies at work, or that a collaborative father is more prepared to make enquiries about family friendly working. Either way, it would be worth further exploration of the effects of targeting family-friendly employment policies at men, on paternal involvement, on child outcomes, and on women's labour force participation.

While differences between groups in time lost to employment were small, collaborators appeared to be less affected by shortages of time than non-collaborators. Collaborative fathers were less likely to feel short of time with their children than others with similar socioeconomic characteristics. Where differences were larger, though, it was in time without children. While it was clear from the interviews that parents prioritised time with their children above time for themselves or their partner, it was the collaborators, especially the external ones, who were more able to find time without the children to do something for their own interest, or to go out with their own partner. Differences in the frequency of going out with a partner were at the level of once a month, or even less often. Compared to the amount of

time parents spend in employment, this is tiny, and yet in making decisions about prioritising time for household members, this comes well down the order for many couples, with over 40% of non-collaborators without support hardly ever or never going out as a couple.

One can see one of the ways in which collaborators, or specifically external collaborators, create time, by looking at mealtimes. For this group, mealtimes were more likely to be enjoyable than for the other groups, and used as times to talk, with the whole family more likely to be present. Thus meals can be seen as family-bonding time, combined with the purpose of getting food into children, not just making them more enjoyable, but also a more efficient use of time.

Children of collaborative parents were more likely to look at books daily than children of similar, but non-collaborative parents. Not surprisingly, collaborative fathers were more involved with activities with their children than non-collaborative ones, but particularly educational ones. The interview data showed a slightly different picture, not so much of less involvement from non-collaborative fathers, although this was true for some, but of a lack of agreement between parents about how time with the children should be spent.

Children of collaborative parents, especially internal collaborators, were also more likely to get trips to places such as the zoo, museum, cinema, or a sporting event, and such trips tended to involve the whole family. Such differences between collaborators and non-collaborators were significant even when socioeconomic controls were applied, so it could be said that collaboration appears to increase the range of experiences a child is offered. Providing plenty of potential learning experiences for children could be viewed as "good practice", which will be discussed to a greater extent in the next chapter. By creating time for such opportunities, collaborative parents are effectively following "expert" advice.

It should be emphasised that while I have, in the main, been discussing statistically significant differences, this only means that there is a difference in the likelihood

between collaborative and non-collaborative couples of exhibiting particular characteristics. Many non-collaborative couples demonstrate characteristics more likely to be shown by collaborative ones, and vice-versa.

The key findings concern finding time and being content with the balance between work and family. While collaborators do not have more hours in the day, they are more able to fit in educational activities with their children, or to find time to go out as a couple. Most of the differences between couples seem very small in terms of the number of hours used: ten minutes a day to read with a child; one evening a month to go out for a meal; one Sunday afternoon a year to go to the zoo. Evidence from the interviews presented in this chapter and the last suggests that collaborative couples are more likely to find ways of creating that time, through recognising what is important to them, through making conscious efforts to leave work on time, through timetabling family activities, and through bedtime routines for the children.

Employment is the main reason provided for parents feeling they do not have enough time with their children. Non-collaborative couples without support seem to feel the impact most, while collaborative couples manage to be happier with the balance of work and family, at least while the child is of pre-school age. Once children are at school, the impact on mothers is reduced all round. From a policy perspective, it would be worth exploring further whether there are benefits in offering a range of family-friendly employment initiatives to fathers, in order to encourage collaboration.

In the next chapter, I shall consider an alternative explanation of those findings in this chapter concerning children's activities, as well as looking at a number of other examples to consider the question whether collaborative parents are more likely to adhere to expert advice.

Chapter 7 – The use of information and advice by collaborative couples

"Collaboration around information is more valuable than the information by itself."

John Roese (Chief technological officer, Nortel, 2008)

7.1 Introduction

While the quote above is taken from a very different context from that with which this thesis is concerned[14], it neatly sums up the ideas that will be explored in this chapter. Information and advice have little or no value if they are not utilised. This is particularly important to policy makers who do not wish to see their attempts to help parents change their habits fail.

Parents need to make decisions on all sorts of matters that are beyond their own area of expertise. While they may gain experience over time which helps them to make such decisions, in the early years, and even before the birth, there are choices to be made for which many parents appreciate some form of advice. Parents also have much more information from which to choose than would have been the case 30

[14] An interview at a conference of the technological news company, GigaOM http://gigaom.com/2008/09/18/mobilize-nortel-cto-john-roese/

years ago, with a proliferation of television programmes, or even channels, dedicated to parenting, as well as the internet, books, family, friends, and professionals.

In chapter 5, it was suggested that most individual parents manage to deal with information on a day-to-day basis quite adequately, irrespective of whether they are collaborative or not. What differentiated the collaborative couples, and particularly the internally collaborative ones, is the way in which they use or gather information in planning for the future. The provision of advice and information is one of the many roles of support, particularly of formal support. How that information is dealt with by parents becomes part of the parenting and coparenting processes. Evidence from studies of abused children[15] suggests that their problems are often caused not so much by a lack of love for the child, but more an inability on the part of the parent or parents to process all the information they have, and to fit it to a particular situation (Crittenden, 2008). When two parents, or two people willing to take on a parenting role, are present, the processing of information can be improved or made worse, depending on the extent to which they collaborate.

In this chapter I will examine the relationship between collaborative parenting and the use of different sources of information around matters of health and pregnancy. I shall also look at the extent to which respondents' practices agree with "expert" advice on discipline, television viewing, vaccinations, breastfeeding, and healthy eating. With this in mind, I will return to the research question posed in chapter 3:

RQ3: *Do collaborative parents adhere to "expert" advice on parenting matters more than non-collaborative parents?*

While adherence to "expert" advice could be considered to be synonymous with "good parenting", particularly when the advice is supported by government information campaigns, I shall try to avoid using such language. The analysis in this chapter is not intended to contribute to debates on what information and advice

[15] Abused children cannot be studied using data from the Growing Up in Scotland study, as families where a risk was identified were filtered out in the sampling process (see chapter 4).

should be provided to parents, except by continuing the argument that collaboration is beneficial to parents and their children.

Data from the Growing Up in Scotland study will again be examined, following a similar method to the previous chapter.

7.2 A brief review of policy and literature on information and advice for parents

7.2.1 Sources of information

In recent years, government social policy in Scotland, like the rest of the UK, particularly in areas such as healthcare and education, has increased its focus on choice for the consumer, or in the case of the child being the consumer, their parents. This has necessitated a large increase in the amount of information provided by the government to help families make informed decisions (Greener and Powell, 2009). The academic literature on the provision of information to parents has also concentrated on healthcare, and to a lesser extent, education (e.g. Eysenbach et al., 2002; Freed et al., 2011; Gildea, Sloan and Stewart, 2009; Khoo et al., 2008; Kisida and Wolf, 2010).

Throughout much of the twentieth century, doctors have made decisions regarding the treatment of a patient, and the only choice has been whether to accept the treatment or not. Criticisms of this position have been raised since the 1970s, but only since 1997 has government policy been to encourage more of a dialogue and exchange of information about options for treatment, to agree what may suit an individual child. Responsibility is thus transferred from the state to the parents, in much the same way as citizens are now expected to take responsibility for other parts of their life, such as seeking employment and ensuring children do not act in an

antisocial way (Lewis, 2003). And yet, there is often a consensus among health care professionals about what is the best option. The exchange becomes one of persuasion to come round to the expert viewpoint, with little really having changed for many consumers, except the volume of information available (Greener and Powell, 2009; Holm, 2011).

It could equally be argued that increased choice around schooling has made little difference to many parents, except in the amount of information they are expected to digest. School choice is meant to force education providers to raise standards, thus benefitting everyone, but there is little evidence that children living in areas with a range of schools to choose from perform any better than those with no choice (Gibbons, Machin and Silva, 2008). At the same time, poorer families are often resigned to sending their children to the local school, while only the more affluent make use of the information available to make an alternative choice (Walker, 2009). The engagement of parents with schools has been shown to have a significant association with a child's academic achievement. Again, though, it is the more advantaged parents who feel more comfortable conversing with teachers, and more able to engage (Harris and Goodall, 2009).

Information provided to parents can be of many kinds. It can be very specific, and tailored to individual families, such as sensitive medical information (e.g. Trask et al., 2009). It can be very general information about what is normal for a child in terms of behaviour or health. It can be about what play facilities are available in the local area, or what has worked for another family to help a baby sleep. What parents want, however, does not always match with what is available. Research has shown that while many parents have a strong respect for professionals, such as GPs, not every parent is happy with the quality of the information they receive, or trusts the information they get from them to be free from bias (Smailbegovic, Laing and Bedford, 2003). Some less affluent parents find themselves intimidated by professionals, thus fail to gain benefit from the professional advice they could receive. Others become dependent on particular individuals, and in doing so, limit the range of information they may utilise (Walker, 2009).

One place to which parents are increasingly turning is the internet, not only for health information, but also more general parenting information. Unlike some other sources of advice, the anonymity of the web allows users to feel free from judgement, and therefore more willing to partake (O'Connor and Madge, 2004). Much of the health information available online does come from experts in their field, although a considerable proportion of it, assessed from a medical point of view is poor, and in some cases, completely wrong (Eysenbach et al., 2002). General parenting information is more difficult to assess. With many discussion forums available online, such as those accessed via the NetMums[16] website, parents can receive information, advice and support from other parents, rather than professionals. First-time, middle-class mothers are the largest users of such websites, although class differences are decreasing as the internet becomes more widely used. The vast majority of users of such sites are women, leading to some fathers expressing feelings of exclusion from discussions (Plantin and Daneback, 2009).

Men can equally feel marginalised in other situations, even before the birth of a child. While women are often well supported during a pregnancy, men sometimes find that they are left out of the information loop, gaining knowledge about the child and the birth only second hand from their partner. Attendance at antenatal appointments or classes by men is often poor. Literature about pregnancy and birth also makes little reference to fathers, which can make them feel further excluded (Deave, Johnson and Ingram, 2008).

While grandparents are the most common informal support for many parents, they are not so well used as sources of information. Research has shown that many parents consider the previous generation's ideas of parenting to be out of date (O'Connor and Madge, 2004). Instead, friends, siblings, and other parents are often used for advice and information, with information about schools or childcare, being passed between mothers at playgroups (Marden and Nicholas, 1997). Some individuals prefer not to ask for advice from those that they know, as it is seen as a

[16] NetMums is the most used parenting website in the UK, with more than 1 million members in 2011, hosting a range of "expert" advice, local information, and discussion boards. See www.netmums.com

sign of weakness. Instead they rely on magazines and television programmes, such as Supernanny[17]. In Walker's (2009) study, many parents were able to give specific examples of parenting techniques, such as the naughty step, they had used after watching Supernanny. Overall though, parents tended to make use of a range of sources of information, and were mostly quite capable of assessing their value.

Much of the literature on information use considers the accessibility of different sources to different socioeconomic groups. It also recognises that men may feel left out of the information loop. To my knowledge, there is very little consideration of the influence of one's partner on one's access to information. In this chapter I will be looking at whether the type of relationship a couple has with respect to their roles as parents could enable better access to and use of information.

In the following sections, I shall briefly examine the sort of "expert" advice in the areas of discipline, television viewing, and health, which is readily available to parents through government or media campaigns. In particular, advice that can be compared with the findings in section 7.5 has been noted.

7.2.2 Discipline

Disciplinary practice is often considered central to ideas of parenting styles, and has become a major issue of psychological research, given the potential damage that can be done to a child's wellbeing (Gershoff, 2002a). Parents may therefore be subject to large quantities of "expert" advice on the matter.

The word "discipline" is often considered synonymous with harsh discipline. However, it simply concerns the training of a child to understand the differences between right and wrong, so that they will grow into self-regulating youths (Holden,

[17] Supernanny, starring Jo Frost, is a Channel 4 television programme in the UK. In each episode, she helps a family where the parents are struggling to raise their children, by demonstrating ways to discipline the children and organise the home.

Vittrup and Rosen, 2011). Research has suggested that harsh or angry discipline is associated with conduct problems later on in childhood (Snyder et al., 2010; Viding et al., 2009). Certain types of physical punishment of children in Scotland have been illegal since 2003. Prior to this date, parents had the right of "reasonable chastisement" of their children. Smacking is not always against the law, but is not recommended as a suitable form of punishment (Scottish Executive, 2003).

Effective discipline occurs when the child correctly interprets the message the parent is attempting to provide (that the behaviour was inappropriate), and processes the information such that they are more likely to conform to what the parent considers acceptable in the future (Gershoff, 2002b). Consistency between parents in discipline, and supporting each other's techniques is thought to be particularly important in providing the child with guidance (McHale et al., 2002).

While some parents may discipline their children at a younger age, it is during toddlerhood, when children become mobile and get themselves into potentially dangerous situations, and begin to test boundaries, that discipline becomes important (Morrongiello, Clemencic and Corbett, 2008). A wide range of disciplinary techniques are available to parents, and what works best for one family is not necessarily what will be appropriate for another. What works best also changes with the age of the child, with techniques such as the "naughty step" being suitable for young children, but less so as they get older.

7.2.3 Child television viewing habits

Television is often used by parents as a way of buying time, leaving the television to "babysit" the child while a parent can get on with other activities, such as preparing dinner (Evans, Jordan and Horner, 2011). Around 35% of American homes have the television on near constantly, even when no one is watching (Vandewater et al., 2005). As with discipline, the effects of children's television viewing habits have

been the focus of many studies. While there is not a push from policy makers to take children away from the television, except indirectly through the encouragement of physical activity, the results of such studies still get regular attention in the media. Parents are therefore subject to plenty of "expert" advice on the matter.

Television viewing in childhood has been shown to be associated with a number of issues, including sleep disturbance, especially when a child watches television in their bedroom in the evening; obesity problems in both childhood and adulthood; poorer cognitive development; and fewer reading activities (Kirkorian, Wartella and Anderson, 2008; Morgenstern, Sargent, and Hanewinkel, 2009; Owens et al., 1999; Tomopoulos et al., 2007; Viner and Cole, 2005). More positively, age appropriate educational television viewing for children above the age of 2 is associated with greater cognitive and academic skills, particularly when viewing is done with an adult who can draw attention to the most important points (Kirkorian, Wartella and Anderson, 2008).

Parents' attempts to mediate the negative effects of television on children fall into three categories: restrictive mediation, in which parents restrict the amount of television a child watches, through the setting of rules as to time and content; coviewing due to a shared interest; and instructive mediation, in which parents discuss the content of programmes with their children (Warren, 2005).

While many parents are aware of the issues regarding television viewing by young children, there is a degree of uncertainty as to how best to deal with them. Problems are particularly prominent among less-well educated parents, of lower socioeconomic status (Fairclough et al., 2009; Jordan et al., 2006).

7.2.4 Health and nutrition

Health outcomes are often not visible until later in life. However, government advice for parents is regularly presented in the media, with regard to children's diets and activity levels. Socioeconomic status is a factor in the likelihood of whether such advice is followed, as well as the availability of healthy food (Brug, 2008). Some mothers fail to follow advice, because they do not trust its validity in the context of large quantities of seemingly inconsistent advice from a variety of sources (O'Key and Hugh-Jones, 2010). Other research suggests that positive parental role models in healthy eating may be more important than attempting to restrict a child's snacking or overeating, or encouraging the eating of healthy foods (Scaglioni, Salvioni and Galimberti, 2008).

The National Health Service, and others, have similarly put a lot of effort into raising awareness of the benefits of breastfeeding. However, many mothers, particularly less well-educated ones, choose not to breastfeed their children (Skafida, 2009). Breastfeeding is obviously an activity that only the mother can undertake with the child. Fathers can influence the decision to breastfeed, and arguments in favour of both breast- and bottle-feeding have been put forward by them. Fathers who are well-informed of the benefits of breastfeeding can encourage this, while bottle-feeding can also be used as a way of getting the father more involved with his child (Earle, 2000; Pisacane et al., 2005; Shepherd, Power and Carter, 2000).

When concerns about the safety of the MMR vaccine were raised in the media, many parents, against advice from their doctors, did not allow their children to be vaccinated. Some of those prepared to pay the costs of private treatment received the measles, mumps and rubella vaccines separately, while others went without. As more recent research has highlighted flaws in the study which caused the concern, and links between the vaccine and autism have been shown not to exist, some parents have still not returned to following medical advice, despite government efforts (Hilton, Petticrew and Hunt, 2007; Pearce et al., 2008; Smailbegovic, Laing and Bedford, 2003).

7.3 Variables for the measurement of use of information sources and agreement between practice and expert advice in GUS

In the following sections, a description is given of each of the variables used to operationalise a number of concepts regarding sources of information and parenting practices. Particular practices may be considered in line with expert advice, or not, hence the variables can be used to answer the research questions set out at the start of this chapter. Basic descriptive statistics are provided. Proportions are all unweighted, based on the 1,271 cases for whom collaboration data was available at sweep 2, and who remained together throughout the course of the study.

7.3.1 Sources of information

A number of variables relating to sources of information and advice are reported in section 7.5.1. These are:

Attendance at antenatal classes (Sweep 1)

This variable was derived from 2 questions, regarding attendance at antenatal classes for the child's mother and father. Parents were classed as attending, even if they only went to one session. Responses are only reported if the child is living with both natural parents (hence the missing data).

	Both parents	Mother only	Neither parent	*Sample size*	*Missing*
Attendance at antenatal classes	39%	16%	45%	*1,226*	*45*

Sources of information used during pregnancy (Sweep 1)

Respondents were asked which of 8 sources they used for information when they had any questions or concerns during pregnancy. Recall error may be an issue, particularly when the respondent is the father, rather than the mother, although this is

only 1% of cases. The categories of "other", "none of these", and "did not have any questions or concerns during pregnancy" are not reported. The mean number of sources is also reported, calculated from the number of different categories the respondent said they had used. The distinction between "friends" and "other mothers" could lead to confusion, as data from later sweeps suggests that most parents have some friends who are the parents of their children's friends.

	Used	Not used	*Sample size*	*Missing*
Health professionals	93%	7%	*1,268*	*3*
Family or friends	72%	28%	*1,268*	*3*
Other mothers	36%	64%	*1,268*	*3*
Internet	22%	78%	*1,268*	*3*
Books, magazines or	53%	47%	*1,268*	*3*
Ready Steady Baby	45%	55%	*1,268*	*3*
TV/Radio	14%	86%	*1,268*	*3*

Sources of information used for health advice (Sweep 1)

The categories for the question on sources of information or advice used within the previous 12 months are more extensive. Own or partner's parents and grandparents have been grouped together, as have other mothers and other friends or family with children, to give the 7 reported categories. The mean number of sources used is also reported, calculated from these 7 categories, plus the "other" category. This question was asked at all four sweeps, although responses from sweep 1 only are reported.

	Used	Not used	*Sample size*	*Missing*
Family doctor	76%	24%	*1,271*	*0*
Health visitor	36%	64%	*1,271*	*0*
Books or leaflets on childcare or family health	15%	85%	*1,271*	*0*
Internet	15%	85%	*1,271*	*0*
Telephone helpline	19%	81%	*1,271*	*0*
Own / partner's parents or grandparents	42%	58%	*1,271*	*0*
Other parents / friends / family with children	29%	71%	*1,271*	*0*

Asking for advice (Sweep 4)

Respondents were asked the extent to which they agree with three statements. Responses have been re-categorised onto a three-point scale. The missing data is all due to responses of "don't know". The first two of these questions were also asked at sweep 1, and the third at sweep 2, but only responses from sweep 4 are reported.

	Agree	Neither / nor	Disagree	*Sample size*	*Missing*
"Difficult to ask for help or advice unless you know someone really well"	31%	17%	52%	*1,269*	*2*
"Hard to know who to ask for help or advice"	24%	17%	59%	*1,265*	*6*
"Professionals like health visitors and social workers do not offer parents enough advice and support with bringing up their children"	14%	37%	49%	*1,236*	*35*

7.3.2 Discipline

Discipline (Sweeps 2 and 4)

Both the respondent and their partner were asked at sweep 2 (when the child was nearly 4) whether they had ever used various disciplinary techniques with the study child. The respondent was asked again at sweep 4 (when the child was nearly 6), with one additional technique listed, whether they had used the technique within the last 12 months with the child. All of these are reported, together with a measure of whether parents were consistent in their practices at sweep 2. Unweighted percentages for whether the respondent or partner stated using a specific technique are provided below.

Discipline can be negative, reprimanding bad behaviour; neutral, ignoring bad behaviour; and positive, encouraging the type of behaviour the parent considers desirable. While positive behaviour could be encouraged in a number of ways, it is unfortunate that the Growing Up in Scotland study focuses on just one such method,

the use of rewards or stickers. Negative disciplinary techniques are considered more fully.

	Respondent Sw2	Partner Sw2	One parent only, Sw2	Respondent Sw4
Time out	60%	53%	34%	56%
Rewards system / sticker chart	58%	55%	32%	58%
Ignoring bad behaviour	71%	60%	37%	51%
Smacking	35%	39%	27%	31%
Naughty step, room or corner	67%	67%	24%	54%
Raised voice / shouting	78%	82%	26%	80%
Removing treats or privileges	76%	76%	28%	80%
Grounding (sweep 4 only)				28%
Sample size	*1,271*	*1,271*	*1,271*	*1,266*
Missing	*0*	*0*	*0*	*5*

The questions were part of a long section on discipline, including questions on whether the respondent had heard of each of the techniques, whether they had ever used them with the child, whether they had used them with the child in the last year (sweep 4), whether they had ever used them with any child, and how useful each technique was.

Recall was likely to be an issue, particularly for techniques used once, a while ago, possibly with a different child. One could also assume a certain amount of underreporting of smacking, as it has been shown that surveys often fail to accurately assess the level of behaviours that are not considered socially desirable (Tourangeau and Yan, 2007). These questions were not part of the self-completion section, so the safety of simply inputting the response silently into the computer is replaced by having to vocalise it to an interviewer. The underreporting may lead to bias, as it may be considered more socially acceptable in some sectors of society. Raising one's voice also appears to be underreported, with only around three quarters of mothers admitting to having done it with their child by the time the child is nearly four.

In an attempt to measure convergence on particular techniques, or the non-use of techniques, differences between the mother's and father's responses were calculated. While convergence cannot technically be claimed, as both parents' responses are only available at one time point, greater similarity between the mother's and father's responses was taken as an indication of convergence, or agreeing which techniques to use. At the same time, however, one could say that rather than convergence, such similarity simply shows parents with similar attitudes and ideas about discipline being more likely to form couples. Different responses do not necessarily mean a lack of convergence either, as a technique may have been used once, by one parent, and then agreed by both it should not be used again. In this case, convergence would have occurred, but the way I have treated the data leads to an incorrect classification. In the analysis I have made the assumption that this is a rare occurrence, and can be overlooked.

Level of agreement with a statement from sweep 4 was also examined, which provides further evidence regarding mothers' thoughts on smacking. The potential for underreporting bias in the responses is as before.

	Agree	Neither / nor	Disagree	*Sample size*	*Missing*
"It may not be a good thing to smack, but sometimes it is the only thing that will work"	39%	19%	42%	*1,269*	*2*

7.3.3 Child television viewing habits

A number of variables from sweep 4 of the survey were used to illustrate the different patterns of television viewing by children. These are assumed to reflect the parents' actions and decisions, even though some questions are specifically about the child. Most of these variables were available at earlier sweeps, but more variation could be seen at sweep 4, as the children were watching more television on average.

Frequency of child watching TV in last week (Sweep 4)

This variable is intended to capture the amount of television a child aged just under 6 watches. In some cases this may be an underestimate, as parents may not be fully aware of whether, or how much, television is watched when they are not present, for example, when the child is with a childminder or at grandparents. Research has suggested that parents tend to understate the amount of television a child watches, and exaggerate the amount of co-viewing with children, and parent-child interaction around television programmes. This bias also tends to increase with social class, as middle class parents are more likely to respond in ways which portray a more idealised viewing model (Rossiter and Robertson, 1975).

	At least 6 of 7 days	Up to 5 days	*Sample size*	*Missing*
Frequency of child watching TV in last week	86%	14%	*1,271*	*0*

Number of hours watching TV on weekday (Sweep 4)

The same comment regarding underreporting is relevant to this variable. There also appeared to be an error with the data, which has been corrected. Responses of 10 hours or more viewing on a weekday were recoded to less than one hour, on the assumption that they had been incorrectly input, with the respondent meaning minutes rather than hours.

	Up to 1	1 to 2	2 to 3	3 or more	*Sample size*	*Missing*
Number of hours watching TV on weekday	16%	48%	28%	8%	*1,271*	*0*

Whether child watches TV by his / herself and in his / her room (Sweep 4)

These variables are indicators of practices that are not recommended for young children by many academics (e.g. Owens et al., 1999; Tomopoulos et al., 2007).

	Yes	No	*Sample size*	*Missing*
Whether child watches TV by his / herself	47%	53%	*1,262*	*9*
Whether child has TV in his / her room	49%	51%	*1,263*	*8*

Reasons for watching television (Sweep 4)

The final four variables are part of a list of 13 reasons why the child watches television. Respondents were allowed to choose up to 3. The four chosen reasons showed the greatest variation between the groups. Selective choice of the data presented may give the impression of greater variation than actually exists, so one needs to be aware that overall variation is more limited than the findings may suggest.

	Yes	No	*Sample size*	*Missing*
Respondent believes TV gets child to sleep	6%	94%	*1,263*	*8*
Respondent believes TV raises awareness of the world	19%	81%	*1,263*	*8*
Respondent says TV is used as reward for good behaviour	14%	86%	*1,263*	*8*
Respondent says TV is relaxing	17%	83%	*1,263*	*8*

7.3.4 Health and nutrition

Uptake of the MMR vaccine (Sweep 3)

Two variables on uptake of the MMR vaccine were considered, as indicative of a parent's willingness to follow medical advice.

	Yes	No	*Sample size*	*Missing*
Whether the child had received the MMR vaccine by age 4 years and 10 months	95%	5%	*1,255*	*16*
Whether the child received neither the MMR, nor any of the separate vaccines	2%	98%	*1,255*	*16*

The second of these variables considers whether the child had received any of the separate measles, mumps or rubella vaccines, when recommended practice would be to receive all, if the MMR vaccine is refused. In fact, only 3 of the 29 respondents opting for the separate vaccines did not take them all. 2 of the 28 who had not received either said that they were going to get the immunisations.

Breastfeeding (Sweep 1)

One variable on breastfeeding was considered, again indicative of a parent's willingness to follow medical advice.

	Yes	No	*Sample size*	*Missing*
Whether the child was ever breastfed, including colostrum in the first few days after the child's birth	69%	31%	*1,271*	*0*

In a small number of cases, such as if the mother is unwell and receiving certain medications, medical advice may actually be not to breastfeed. On the whole, one may expect most mothers to have been made aware of the benefits of breastfeeding, at antenatal classes or by their midwifes, as well as in literature from the health service.

Nutrition (Sweep 4)

Finally, there are four variables on healthy eating, used as an indicator of the parents' willingness to follow advice on such matters. The first three concern the

consumption of unhealthy snacks, at or between meals. There may be an element of undercounting, if parents are not fully aware of snacks given by grandparents. Parents may not feel able to control such snacks, so responses may reflect not the parents' practices, but those of others.

	More than once a day	Once a day	One to 6 days a week	Less often	*Sample size*	*Missing*
Frequency of eating sweets or chocolates (whole packets / bars)	9%	35%	53%	2%	*1,256*	*15*
Frequency of eating crisps	2%	17%	62%	19%	*1,256*	*15*
Frequency of drinking soft drinks (cans, bottles and diluting juice, but not fresh fruit juice or diet drinks)	21%	17%	16%	46%	*1,256*	*15*

With the final question, there may be an element of parents reporting what they think makes them a good parent, rather than what necessarily happens. A quarter of the sample reported the child eating at least four different types of fruit a day, which is higher than one may expect. Fruit could equally have been replaced with vegetables, although a combined variable would possibly have been most useful, given advice to eat "five a day".

	None	One	Two or three	Four or five	More than five	*Sample size*	*Missing*
How many different fruits eaten by child each day	3%	10%	61%	22%	4%	*1,255*	*16*

Responses to a set of questions on snacking between meals are not presented, as the questions are poorly worded, open to a large degree of interpretation.

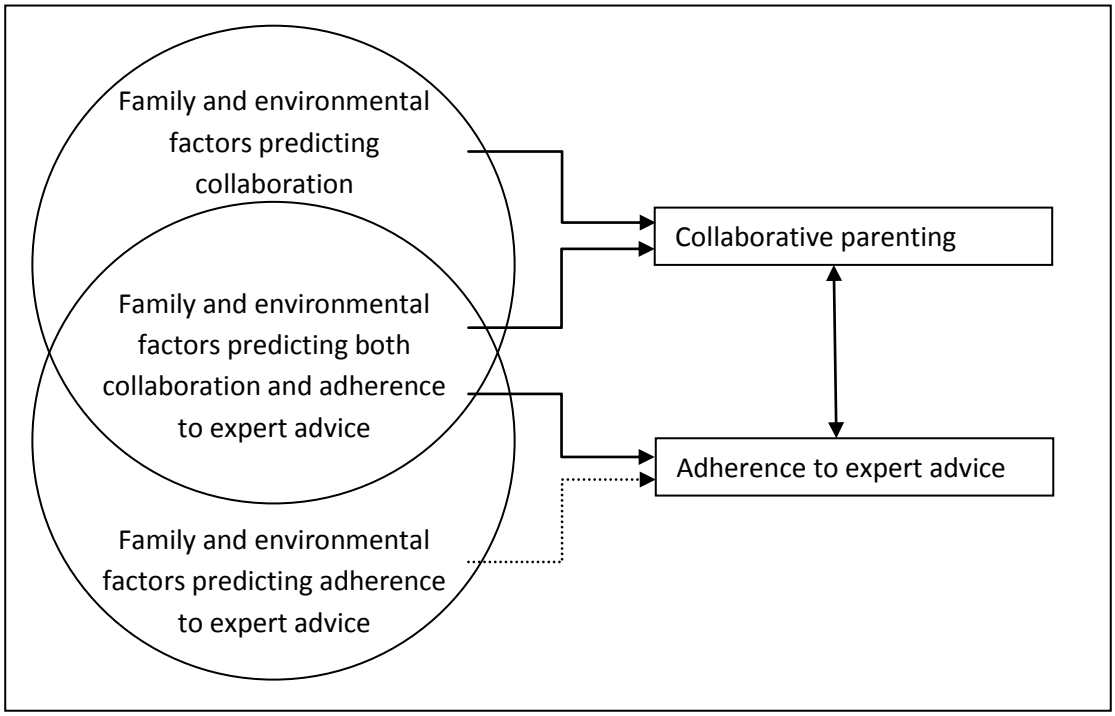
7.4 A model for the association between collaboration and adherence to expert advice on parenting matters

The research question being considered in this chapter concerns whether collaborative parents adhere to expert advice more than non-collaborative ones. This

will be modelled in much the same way as the relationship between collaboration and time use was in the previous chapter (see section 6.4).

Again, the direction of any causality will not be considered, although theory suggests that collaboration is a predictor of the attention that is paid to expert advice. Testing only for associations, rather than causality, it is possible to model the associations using collaborative parenting as the dependent variable. As discussed in the previous chapter, this has the advantage of being able to use the same basic model for each association, only changing the one variable that is being tested for its association with collaboration, rather than changing all the control variables as well. This basic model is shown in figure 7.1.

Figure 7.1 Model of the association between collaboration and use of expert advice



The factors predicting the adherence to expert advice, but not collaborative parenting, can be excluded from the model, as they should be accounted for in the variable acting as an indicator for the adherence to advice. This means that the control variables used in each of the models are the same as in the previous chapter: parent's marital status; length of time living together; father's age; household

socioeconomic classification; whether either parent is in receipt of benefits; father's highest level of educational qualification; father's ethnic origin; and the child's general health. Variables, such as those representing the influence of the child's grandparents, while possibly predicting adherence to expert advice or best practice, do not predict collaboration, and hence do not form part of the model as presented. For a complete model of adherence to expert advice, they would need to be included.

For more details, and an explanation of how to read the tables, see section 6.4.

7.5 Findings

7.5.1 Sources of information

Starting from before the birth of a child, one can see a number of distinctions between collaborators and non-collaborators, and those with and without support, in terms of engagement with the provision of advice and information from professionals. Collaborative couples appear to be more willing or able to engage with classes offered to prospective parents in preparation for giving birth. Two thirds of externally collaborative mothers and half of externally collaborative fathers attended antenatal classes when the mother was pregnant with the study child (table 7.1). (Many of those who did not attend said they had attended for a previous birth.) This compares to just under half of non-collaborative mothers without support, and a third of their partners.

Table 7.1 Attendance at ante-natal classes, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Attendance at antenatal classes (natural parents only), sweep 1								**	**	-		
Both mother and father	49.8%	43.1%	38.4%	32.8%	38.3%	*483*	c	**	**	-	1.62	1.30
Mother only	14.7%	11.6%	16.0%	16.0%	15.4%	*192*	c	**	*	-	1.44	1.18
Neither	35.5%	45.3%	45.6%	51.2%	46.3%	*550*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,225*						
Sample size	*172*	*122*	*460*	*471*	*1,225*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort

The first significance column (headed Sig1), shows that the difference between the four groups, external collaborators, internal collaborators, non-collaborators with support, and non-collaborators without support, is statistically significant at the 1% level (conducting a chi-square test) in terms of whether both parents attended the classes. The same is true in terms of whether at least one parent attended the classes. The next column (Sig2) shows significant differences between collaborative and non-collaborative couples, at the 1% level for whether both parents attended, and the 5% level for whether at least one parent attended. The exponentiated coefficients associated with these differences (in the column headed Exp2) show that the odds of the couples being collaborative are over 60% greater if they both attended antenatal classes, and over 40% greater if at least the mother attended. When controls are introduced, however, these exponentiated coefficients fall, becoming closer to 1 (column Exp3), and the differences between collaborators and non-collaborators are no longer statistically significant (column Sig3). This implies that the differences evident in the table are partly down to social class, education and other characteristics of the household, rather than collaboration, although some non-significant difference remains.

Significant differences were found between collaborators and non-collaborators in most of the potential sources of information used during pregnancy (table 7.2). While nearly every couple engaged with health professionals during pregnancy, there was still an increased likelihood for collaborative couples to engage with such people. Over 70% of couples also gathered information from family or friends, this being most common among external collaborators. The internet was used by around one third of internally collaborative couples, compared with one in five of the other groups. The table shows that collaborative mothers were significantly more likely to have consulted health professionals, family or friends, the internet, books, newspapers or magazines, and television or radio. However, all of these associations could be explained by the control variables. The most significant difference between collaborators and non-collaborators was in terms of the mean number of different sources of information used, but this too was adequately explained by the control variables.

Table 7.2 Sources of information used for advice about pregnancy and health in the early years, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Sources of information used during pregnancy, sweep 1												
Health professionals	97.3%	95.7%	93.9%	92.0%	93.8%	*1,267*		-	*	-	2.19	1.62
Family or friends	80.0%	73.7%	73.5%	68.0%	72.2%	*1,267*		*	*	-	1.43	1.27
Other mothers	36.0%	43.9%	32.3%	36.4%	35.5%	*1,267*		-	-	-	1.24	0.99
Internet	20.5%	33.5%	18.3%	21.4%	21.2%	*1,267*		**	*	-	1.41	1.05
Books, newspapers or magazines	55.4%	60.1%	51.5%	50.6%	52.5%	*1,267*		-	*	-	1.30	1.02
Ready Steady Baby	49.4%	44.1%	44.7%	41.2%	43.9%	*1,267*		-	-	-	1.20	1.02
TV / radio	17.2%	17.9%	13.9%	11.3%	13.7%	*1,267*		-	*	-	1.47	1.35
Mean number of different sources used[1]	3.56	3.69	3.28	3.20	3.32	*1,267*		**	**	-	1.16	1.05
Sources of information used for health advice, sweep 1												
Family doctor	79.3%	81.1%	77.8%	71.5%	75.8%	*1,270*		*	*	*	1.37	1.55
Health visitor	37.3%	38.4%	36.3%	34.3%	35.8%	*1,270*		-	-	-	1.12	1.20
Books or leaflets on childcare or family health	14.2%	25.8%	12.7%	13.3%	14.3%	*1,270*		**	*	-	1.55	1.15
Internet	15.9%	18.4%	14.9%	12.7%	14.5%	*1,270*		-	-	-	1.27	0.94
Telephone helpline	16.6%	24.2%	21.2%	14.8%	18.3%	*1,270*		-	-	-	1.12	1.00
Own / partner's parents or grandparents	46.9%	34.9%	46.9%	37.3%	42.0%	*1,270*		**	-	-	1.01	0.98
Other parents / friends / family with children	28.6%	40.7%	25.2%	27.7%	28.1%	*1,270*		*	*	-	1.41	1.21
Mean number of different sources used[1]	2.43	2.65	2.38	2.18	2.33	*1,270*		**	**	-	1.12	1.07
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
1: In calculating the mean number of different sources used, information from multiple sources within one of the listed categories was counted once only. An additional category of "other" was also counted in advice on health.

Growing Up in Scotland, child cohort

A different pattern can be seen when looking at the sources of advice and information used by parents about the health of their children, when they were aged just under 3. Collaborators appeared more likely to engage with their family doctor, and this difference remained significant when controls were introduced. Rather than the internet[18], internal collaborators made significantly more use of printed material on health and childcare, although differences between collaborators and non-collaborators were not significant once controls were applied. The same was true for increased use of other parents, family or friends with children by internal collaborators. Including friends in the same category as other mothers, makes it more clear that those with support make greater use of their own parents or grandparents when looking for advice on health, whereas internal collaborators make greater use of people their own age. This may go against the image of the internal collaborator couple as a closed system that was painted in chapter 5, keeping decision making processes within the household, but this image is merely meant as a contrast to the open system of the external collaborators, who make use of other family and friends on a different level from the type of information sharing that is being discussed here. Overall, those who neither collaborate nor have support make use of a smaller range of information than the other groups do.

As the children get older, one might expect differences in the sources of information used to persist. However, this does not appear to be the case for major decisions, such as the choice of school or pre-school. In choosing pre-schools, the only significant differences were in the use of friends rather than their own parents, by internal collaborators. In choosing schools, the only significant difference was in the greater use of the internet by collaborators. The number of sources of different information used in choosing pre-schools averaged out at just above one for all the groups, mostly either the pre-school itself, or friends, with almost 40% of parents saying they did not look for advice. Similarly, around a third of parents of all groups said they did not look for advice in choosing the primary school, with again pre-school staff and friends being the main source of information for those who did look

[18] Using data from sweep 2 (not shown), when the children were aged just under 4, internal collaborators were significantly more likely to have consulted the internet for health advice, and significantly more likely to have consulted a telephone helpline.

for it. While collaborative parents were more likely to consider the reputation of the school and the childcare facilities provided by the school than non-collaborative parents, the school being the nearest to home and whether friends, relatives or siblings go or went there were the most influential factors in the choice of school for all groups (table A7.1). Thus, no group as a whole appears to have done a lot of research into choices of primary school or pre-school, although some individual families clearly have. This acceptance of the local primary school was also evident in the interviews. Only when it came to secondary level was concern about the quality of education expressed more regularly. Even then, decisions largely centred around whether to use private or state education, with one family even weighing up the costs and benefits of moving house to get into the catchment area of a better state school against paying for private education.

Table 7.3 shows that non-collaborative parents without support have greater difficulty accessing help or advice than other parents. More than a third of such parents agreed that they found it difficult to ask for help or advice, unless they knew someone really well (compared to a quarter of the other groups). A third also said they found it hard to know who to ask for help or advice.

The difference between collaborative couples and non-collaborative couples in response to this statement was also significant when controls were put in place, suggesting that collaboration does in fact help couples work out who to ask for advice, rather than this simply being a result of class and education. The odds of couples being collaborative were doubled if they disagreed with the statement (70% greater once controls were applied).

Non-collaborators without support were also the most likely to think that professionals like health visitors and social workers do not offer enough advice and support. Thus, there is a group of people, who not only have the least support from their partner, friends or family, but also find it difficult getting support from professionals. This is of particular importance for practitioners aiming to ensure all families have adequate support.

Table 7.3 Opinions on asking for help or advice, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
"Difficult to ask for help or advice unless you know someone really well", sweep 4								**	*	-		
Agree	23.7%	28.9%	28.2%	37.1%	31.2%	*388*	c	**	*	-	0.71	0.79
Neither agree nor disagree	16.9%	16.1%	17.2%	18.6%	17.6%	*221*	c	**	*	-	0.71	0.84
Disagree	59.4%	55.0%	54.6%	44.3%	51.2%	*659*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,268*						
"Hard to know who to ask for help or advice", sweep 4								**	**	**		
Agree	13.5%	20.2%	19.6%	33.9%	24.5%	*308*	c	**	**	**	0.54	0.62
Neither agree nor disagree	9.9%	17.3%	19.9%	16.8%	17.1%	*213*	c	**	**	**	0.50	0.60
Disagree	76.5%	62.5%	60.4%	49.3%	58.4%	*743*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,264*						
"Professionals like health visitors and social workers do not offer parents enough advice and support with bringing up their children", sw. 4								**	*	-		
Agree	10.9%	8.4%	12.4%	18.8%	14.3%	*173*	c	**	*	-	0.61	0.72
Neither agree nor disagree	32.2%	36.8%	39.9%	38.1%	37.8%	*462*	c	**	**	-	0.66	0.74
Disagree	57.0%	54.8%	47.7%	43.1%	47.8%	*600*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,235*						
Sample size	*175*	*123*	*473*	*497*	*1,268*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort

7.5.2 Discipline

Table 7.4 shows that, before the child had reached her or his fourth birthday, around three fifths to three quarters of respondents (the main carers) had used each of the disciplinary techniques listed (time out, rewards or stickers for good behaviour, ignoring bad behaviour, the naughty step, raising one's voice, and removing treats), and a third had smacked their child. Significant differences were evident in the use of time out, which was used by over three quarters of internally collaborative mothers, and just over half of external collaborators, rewards / stickers, and the naughty step, both of which were more likely to be used by collaborators. The only difference which was significant when controls were used was for smacking, which had been used by 28% of collaborators, and 36% of non-collaborators.

Fathers appeared to be less likely to have used the softer disciplinary techniques than mothers, and were more likely to go against what would generally be considered good parenting advice, and have smacked or raised their voice at or shouted at a child. Collaborative fathers were more likely than non-collaborative ones to use time out, rewards or stickers, the naughty step, and to remove treats, techniques commonly recommended in parenting manuals. With controls in place, they were also significantly less likely to have smacked their child.

Three of the seven techniques showed greater similarity between collaborative partners than non-collaborative ones, differences that remained significant once controls were taken into account. The odds of parents being collaborative were around 50% greater if they had both used or neither had used rewards or stickers, and if they had both used or had both not used the removal of treats as a punishment.

Table 7.4 Disciplinary techniques, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Disciplinary techniques used by respondent with study child, sweep 2												
Time out	53.8%	76.3%	56.6%	62.0%	60.2%	*1,270*		**	-	-	1.17	1.01
Rewards / stickers	59.9%	65.3%	54.5%	56.9%	57.2%	*1,270*		-	*	-	1.31	1.07
Ignoring bad behaviour	70.8%	71.8%	68.3%	73.2%	70.9%	*1,270*		-	-	-	1.02	0.92
Smacking	27.6%	29.9%	38.3%	34.1%	34.4%	*1,270*		*	*	*	0.70	0.66
Naughty step, etc.	71.7%	70.9%	68.4%	63.9%	67.3%	*1,270*		-	*	-	1.28	1.04
Raised voice / shout	72.6%	80.7%	77.7%	78.4%	77.6%	*1,270*		-	-	-	0.89	0.81
Removing treats	79.9%	75.7%	77.2%	73.1%	75.8%	*1,270*		-	-	-	1.20	1.10
Disciplinary techniques used by partner with study child, sweep 2												
Time out	58.6%	66.9%	49.3%	51.5%	53.1%	*1,270*		**	**	*	1.61	1.48
Rewards / stickers	60.9%	63.3%	50.8%	53.4%	54.4%	*1,270*		*	**	-	1.50	1.24
Ignoring bad behaviour	57.0%	65.6%	55.6%	59.9%	58.4%	*1,270*		-	-	-	1.12	0.97
Smacking	37.1%	30.1%	42.6%	36.9%	38.4%	*1,270*		-	-	*	0.79	0.71
Naughty step, etc.	72.3%	75.1%	66.6%	61.7%	66.2%	*1,270*		**	**	-	1.56	1.33
Raised voice / shout	79.8%	85.2%	81.5%	80.1%	81.1%	*1,270*		-	-	-	1.09	0.93
Removing treats	84.4%	79.7%	75.8%	72.9%	76.2%	*1,270*		*	**	-	1.64	1.41
Disciplinary techniques used by one parent but not other with study child, sweep 2												
Time out	33.7%	37.7%	32.0%	34.2%	33.6%	*1,270*		-	-	-	1.10	0.95
Rewards / stickers	25.1%	25.8%	33.2%	33.0%	31.3%	*1,270*		-	*	*	0.69	0.68
Ignoring bad behaviour	36.0%	39.6%	40.1%	34.5%	37.3%	*1,270*		-	-	-	1.01	1.01
Smacking	20.4%	15.9%	30.5%	28.9%	27.1%	*1,270*		**	**	**	0.54	0.51
Naughty step, etc.	23.8%	21.0%	23.7%	25.8%	24.3%	*1,270*		-	-	-	0.89	0.88
Raised voice / shout	28.3%	20.2%	25.4%	27.0%	26.0%	*1,270*		-	-	-	0.94	1.01
Removing treats	23.9%	22.1%	30.0%	29.6%	28.3%	*1,270*		-	*	*	0.71	0.68

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Disciplinary techniques used by respondent in last year with study child, sweep 4												
Time out	49.1%	60.5%	55.9%	59.9%	57.0%	*1,265*		-	-	-	0.85	0.78
Rewards / stickers	56.7%	56.4%	58.5%	57.4%	57.6%	*1,265*		-	-	-	0.95	0.89
Ignoring bad behaviour	41.0%	45.4%	52.8%	52.9%	50.5%	*1,265*		*	*	**	0.67	0.61
Smacking	23.0%	14.7%	36.7%	32.0%	30.9%	*1,265*		**	**	**	0.47	0.51
Naughty step, etc.	52.2%	57.0%	56.4%	52.1%	54.2%	*1,265*		-	-	-	1.00	0.89
Raised voice / shout	73.0%	79.7%	81.4%	81.2%	80.0%	*1,265*		-	-	*	0.72	0.62
Removing treats	83.8%	82.4%	79.8%	76.6%	79.3%	*1,265*		-	-	-	1.40	1.21
Grounding	30.0%	21.8%	29.7%	28.6%	28.6%	*1,265*		-	-	-	0.88	1.16
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above

Growing Up in Scotland, child cohort

The odds of parents being collaborative were twice as large if they demonstrated similarity in their use or non-use of smacking. In the last case, there is a clear increased likelihood among collaborative parents of never having smacked their child, so this could be considered evidence of convergence on the "expert" advice of using softer forms of discipline. Just over 60% of collaborative parents have used rewards or stickers, so convergence in this case is not simply on using the technique, but also on not using the technique. This would suggest that where one parent has introduced such a technique, there is an increased likelihood that the other parent will go along with it, if they are collaborative. There is also an increased likelihood of this form of positive discipline being introduced. Around 80% of collaborative parents have used the removal of treats as a punishment. In this case, convergence is largely on the use of the technique.

By sweep 4, when the child is aged just under 6, the disciplinary techniques used in the previous year by the parents have changed. Ignoring bad behaviour has become less common, particularly among collaborative parents. Smacking has also become slightly less common, and again more so amongst collaborative parents. The use of the naughty step has become less common, while raising voices or shouting has become slightly more common, and at this stage collaborative parents are significantly less likely to shout at their child, once controls have been considered.

At this age, only around one-fifth of internally collaborative respondents agree that smacking is sometimes the only thing that works, even though fewer than that actually admitted to smacking their child in the previous year. Around two-fifths of other parents agreed with the statement (table 7.5).

Table 7.5 Opinions on smacking, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
"Sometimes smacking only thing that works", sweep 4								**	**	-		
Agree	40.2%	21.7%	42.3%	40.1%	39.2%	*496*	c	**	**	-	0.69	0.76
Neither agree nor disagree	14.6%	17.4%	20.0%	19.4%	18.8%	*239*	c	**	**	-	0.60	0.72
Disagree	45.2%	60.8%	37.7%	40.5%	42.0%	*533*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,269*						
Sample size	*175*	*123*	*473*	*498*	*1,269*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort

The qualitative interviews offer greater insight into the realities of what actually goes on in terms of discipline. From one of the less collaborative couples, Mrs Nazir spoke about her attempts to discipline the children in a positive manner:

Mrs N I'd normally do sticker, reward. I'd try and do more positive stuff, so they get stickers or they get treats if they do something good. It's normally cleaning their rooms, that's the major thing, cleaning or cleaning after them. I have to say I shout at them probably if they do something that I don't want them to do. Husband's quite calm about that sort of thing. […]

SH So does he use the sticker reward system as well?

Mrs N Yes, he does. But the kids don't really get much. I think it's having that consistency. We're beginning with good intentions, but in the end, a whole month has just gone to pot. […] It's just that, because we try to do something over the weekend with the kids, that we've decided that whoever's been the more... all the general stuff, been the more courteous, more generous and considerate, or if they do something good in school, or anything like that, then that child decides what we do. So that, or, if they want to go and play a game, if they want to play Monopoly or cards, that's what we do, basically. So, that's working out better than stickers. […]

SH Was that something that you introduced, or your husband did?

Mrs N That was me. I'm the one that does that [laughs]. My husband would just go "oh, no, no, you can take them..."

The disciplinary techniques Mr Nazir spoke about are quite different from those mentioned by his wife. He spoke mainly about removal of privileges, while Mrs Nazir spoke about attempts to be more positive. She says her husband did try using the sticker chart, but for various reasons, it did not work out. Instead, she now uses an alternative positive system, but her husband is not particularly interested in seeing it through. As was seen with the Petersons in chapter 5, when parents do not agree about discipline, the parent who is more concerned about the child's behaviour can end up in the role of disciplinarian, which can exaggerate initial differences.

In the more collaborative households, discipline tended to be less of an issue, and when any major incidents did take place, they were discussed between the parents.

Punishments were reviewed, though generally in terms of what would happen next time, rather than over-ruling a decision already made by one parent.

Convergence of disciplinary techniques within collaborative households appears much more obvious when the qualitative interview transcripts are considered, rather than the Growing Up in Scotland data. This may partly be due to the problems already discussed with the GUS data. The interviews provide a much more complete demonstration of the process of agreeing (or disagreeing) on discipline, and following this through into practice. While the interviews demonstrate convergence, the analysis of GUS data shows that this convergence tends to be on what would commonly be recommended as good disciplinary practice.

7.5.3 Child television viewing habits

Table 7.6 shows that there are no significant differences between the groups in terms of the number of days on which a child of age 5 years and 10 months watches television, or in the number of hours a child watches television on a weekday (or indeed at a weekend). Differences do appear to occur, however, in terms of the ways in which the child watches television, and the reasons parents give for allowing their child to watch.

Children of non-collaborators with support are the most likely to watch television on their own, and children of internal collaborators the least likely. Non-collaborators are the most likely to allow the children a television in their bedroom, and internal collaborators the least likely. Non-collaborative parents are more likely to say that television helps their child get to sleep, while collaborators, especially internal collaborators are most likely to say that television raises their child's awareness of the world. External collaborators are most likely to say television is used as a reward for good behaviour, and that television is relaxing.

Table 7.6 Child television viewing habits, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Frequency of child watching TV in last week												
At least 6 of 7 days	88.6%	86.6%	87.9%	83.0%	85.9%	*1,093*		-	-	-	1.24	1.47
5 days or fewer	11.4%	13.4%	12.1%	17.0%	14.1%	*177*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Number of hours watching TV on weekday								-	-	-		
Up to one hour	15.9%	18.7%	14.6%	18.6%	16.8%	*208*	c	-	-	-	1.03	0.91
1 to 2 hours	46.3%	45.6%	46.8%	46.9%	46.6%	*600*	c	-	-	-	0.98	0.83
2 to 3 hours	31.5%	30.2%	28.9%	24.9%	27.8%	*348*	c	-	-	-	1.68	1.13
3 hours or more	6.3%	5.6%	9.7%	9.7%	8.8%	*106*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
Child watches TV by his / herself												
Yes	42.5%	38.6%	52.8%	45.7%	47.3%	*597*		**	*	-	0.71	0.76
No	57.5%	61.4%	47.2%	54.3%	52.7%	*664*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,261*						
Child has TV in his / her room												
Yes	47.0%	34.9%	54.5%	51.4%	50.4%	*619*		**	**	-	0.64	0.99
No	53.0%	65.1%	45.5%	48.6%	49.6%	*643*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
TV gets child to sleep												
Yes	2.2%	4.1%	6.1%	8.3%	6.3%	*74*		*	*	-	0.39	0.73
No	97.8%	95.9%	93.9%	91.7%	93.7%	*1,188*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
TV raises awareness of the world												
Yes	21.6%	33.7%	15.7%	17.1%	18.7%	*241*		**	**	**	1.83	1.88
No	78.4%	66.3%	84.3%	82.9%	81.3%	*1,021*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
TV used as reward for good behaviour												
Yes	20.1%	12.8%	12.8%	13.1%	13.9%	*174*		-	-	-	1.38	1.18
No	79.9%	87.2%	87.2%	86.9%	86.1%	*1,088*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
TV is relaxing												
Yes	24.0%	17.2%	13.8%	17.0%	16.8%	*217*		*	*	-	1.46	1.32
No	76.0%	82.8%	86.2%	83.0%	83.2%	*1,045*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,262*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort, sweep 4

Once controls are taken into account, only one finding, that collaborative parents are more likely to say that television raises their child's awareness of the world, is statistically significant. Expert advice may be to limit a child's television viewing, not leaving her to watch on her own, or before going to bed, but on evidence from the GUS study, collaborators and non-collaborators do not act very differently in their restriction of a child's viewing habits. Some differences could be seen in the way in which parents chose to validate their practices.

The interviews also demonstrated little evidence regarding collaboration and adherence to advice on television viewing. Most parents, collaborative and non-collaborative alike, felt there was no need for rules around television viewing. The more collaborative ones were more likely to speak about expectations, rather than strict rules, and most children seemed to fit in with what was expected of them.

What was perhaps more telling was the way in which children were often aware of the inconsistencies between parents, and used this to their advantage. As these inconsistencies were more common among non-collaborative parents, it was in these interviews where examples tended to come up. Children would know which parent to approach in order to get what they wanted, so if they wanted to watch television, they would ask the parent who was most likely to agree. Children also took advantage of a lack of communication between parents. Rachel Quinn, for example:

Ms Q Maybe Arthur's had the telly on and he's done something and I've said right, the telly's off, you need to go do something else, and then I've maybe not made that absolutely clear to Sandy, so when I come in, telly's back on, Arthur's sitting with a grin on his face.

While such examples can highlight non-collaborative behaviour, they do not provide any evidence that collaborative parents stick to expert advice on television viewing any more than less collaborative ones.

7.5.4 Health and nutrition

Table 7.7 shows that some parents, mostly non-collaborative, were still not getting their children vaccinated against measles, mumps and rubella in 2007/2008, around five years after concerns about the vaccine were quashed.

Significantly more non-collaborative parents without support failed to take their children to receive the MMR vaccine. This remained significant when socioeconomic factors were taken into account, with the odds of couples being collaborative being 3 times the size if they arranged for their child to receive the vaccine. 4% of non-collaborators without support arranged for their child to receive neither the MMR vaccine, nor the separate vaccines, compared to 1% of other parents.

Table 7.8 shows that collaborative mothers are significantly more likely than non-collaborative ones to have breastfed their child, even only for a short period immediately following the birth, although once socioeconomic controls are applied, there is no significant difference.

In terms of healthy eating, again collaborators were more likely to follow advice on eating more fruit and vegetables, and consuming fewer sweets, crisps and sugary drinks. These differences were largely accounted for by the control variables. Only one difference was evident after controls were applied, that non-collaborators were more likely to consume soft drinks more than once a day (table 7.9).

Table 7.7 Take-up of MMR vaccine, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Child received MMR vaccine, sweep 3												
Yes	98.4%	97.8%	96.5%	93.5%	95.7%	*1,197*		*	*	*	2.85	3.05
No	1.6%	2.2%	3.5%	6.5%	4.3%	*57*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,254*						
Child received neither MMR nor separate vaccines, sweep 3												
Yes	0.6%	1.3%	0.8%	4.0%	2.1%	*28*		**	-	-	0.36	0.36
No	99.4%	98.7%	99.2%	96.0%	97.9%	*1,226*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,254*						
Sample size	*173*	*123*	*468*	*490*	*1,254*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above

Growing Up in Scotland, child cohort

Table 7.8 Whether child was ever breastfed, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Child ever breastfed (including colostrum in first few days after birth), sweep 1												
Yes	69.7%	76.3%	63.1%	67.5%	67.0%	*874*		*	*	-	1.39	1.00
No	30.3%	23.7%	36.9%	32.5%	33.0%	*396*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,270*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above

Growing Up in Scotland, child cohort

Table 7.9 Healthy eating, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
How often eats packets of sweets or chocolate bars								**	**	-		
More than once a day	5.3%	4.9%	12.2%	9.9%	9.6%	*115*	c	*	**	-	0.44	0.62
Once a day	37.3%	27.9%	37.3%	35.1%	35.5%	*443*	c	**	**	-	0.70	0.88
One to 6 days a week	55.5%	66.5%	49.1%	51.1%	52.4%	*667*	c	-	-	-	2.00	2.03
Less often	1.9%	0.7%	1.4%	4.0%	2.4%	*30*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,255*						
How often eats crisps								*	*	-		
More than once a day	0.6%	0.0%	1.7%	3.1%	1.9%	*23*	c	-	-	-	0.13	0.35
Once a day	14.2%	12.5%	19.8%	19.4%	18.2%	*214*	c	*	**	-	0.57	0.80
One to 6 days a week	63.3%	69.6%	63.6%	57.3%	61.6%	*785*	c	-	-	-	0.83	0.77
Less often	21.9%	18.0%	14.9%	20.3%	18.3%	*233*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,255*						
How often drinks soft drinks (cans, bottles and diluting juice, but not diet drinks or fresh fruit juice)								-	*	-		
More than once a day	13.2%	14.5%	22.7%	24.7%	21.5%	*265*	c	**	**	*	0.51	0.60
Once a day	17.7%	20.2%	18.0%	14.9%	17.0%	*213*	c	-	**	-	0.71	0.88
One to 6 days a week	16.8%	17.3%	15.2%	16.2%	16.0%	*206*	c	-	*	-	0.77	0.93
Less often	52.3%	47.9%	44.1%	44.2%	45.6%	*571*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,255*						
How many different fruits eaten by child each day, sweep 3								*	*	-		
None	4.5%	0.8%	3.8%	2.8%	3.2%	*39*	c	-	-	-	0.90	1.02
One	6.7%	5.1%	13.6%	10.2%	10.5%	*131*	c	**	*	-	0.56	0.71
Two or three	54.4%	65.6%	59.3%	63.4%	60.9%	*760*	c	*	**	-	0.66	0.79
Four or five	28.1%	25.3%	18.9%	19.8%	21.1%	*273*	c	-	-	-	0.83	0.97
More than five	6.2%	3.1%	4.5%	3.8%	4.3%	*51*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,254*						
Sample size	*172*	*123*	*469*	*491*	*1,255*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
c: Ordinal variable. Significance and coefficients based on cumulative percentages

Growing Up in Scotland, child cohort

The interviews similarly provided little evidence that collaborative parents were more likely to adhere to expert advice on health matters. There were isolated examples, such as that provided by Andrew Dewar:

Mr D I also tried to impose that they get fruit and vegetables regularly every day. And their mum can't be bothered always doing it because the kids don't want it. They'll complain, she's tired, she can't be bothered, I'm not here. So, when I'm home, I'll enforce it myself. I'll try and do it in a funny way. And I'll say "Come on downstairs, dad's cooking, and you know what you're all getting" [Laughs].

When parents raised such examples, it demonstrated that the health of children was being thought about by at least one parent. That parent may have to act on their own, but there was no evidence to suggest that children of non-collaborative parents were failing to benefit from healthy living advice.

7.6 Conclusion

This chapter has examined data with respect to the research question as to whether collaborative parents adhere to "expert" advice on parenting matters to a greater extent than do non-collaborative parents. The implications of this go deeper than policy concerns about getting messages across, and hint at "good parenting" practices.

"Good parenting" can be assessed in moral or legal terms, regarding the rights of the child, such as not hitting him or her. Data from the Growing Up in Scotland study offer no insight as to the rights or wrongs of smacking, but it can tell us about the types of parents who are more or less likely to use smacking as a form of punishment. Therefore, rather than making claims about good practice, I have stuck to claims about conforming to government advice on such matters.

"Good parenting" can also be assessed in terms of outcomes for the child, in the short or long-term. The GUS study can tell us more about short-term outcomes, and as data builds up over time, will be able to tell us more about long-term ones. I shall consider some of these short-term outcomes in the next chapter, with the aim of demonstrating that collaboration is a part of good parenting. In this chapter, I have compared different groups of parents in terms of how closely their practices follow those which might commonly be portrayed in the media, or in books about parenting, or in government information leaflets, as good parenting practices, because of their health or developmental benefits.

The argument provided in chapter 3, as to why collaborative parents are more likely to adhere to expert advice comes from theories of collaborative learning. As ideas are discussed between two partners, the most persuasive is likely to win out. And the most persuasive idea is likely to be the one that is backed up with some form of evidence, or "expert" advice. Thus, collaborative parents are more likely to converge on particular practices which may be regarded as "good parenting", while parents who do not act collaboratively are more likely to stick to their separate ideas. One of the two parents may therefore be acting in a less than optimal way, and at the same time, the child may be receiving mixed messages.

The evidence presented in this chapter in favour of this argument is limited. Many of the chosen indicators do show that collaborative couples are more likely to conform to expert advice than non-collaborative ones. However, once controls are applied, differences between collaborators and non-collaborators largely become non-significant.

One of the reasons for this may be that some of the indicators relate to the main carer's (generally the mother's) opinions or practices. As the main carer, this person may be better informed than her partner on parenting matters, and there is therefore less variation between practices. For example, table 7.8 shows whether the mother ever breastfed the child, and once controls were applied, there were no differences at all between collaborative and non-collaborative mothers, suggesting that

collaboration does not play a part in the mother's decision to breastfeed. Table 7.2 shows the sources of information used by the main carer during pregnancy and regarding health matters. Mothers in collaborative and non-collaborative relationships alike may look for information, but only in the collaborative ones is it adequately shared with, and acted upon by, their partners. Where comparable information is provided by both parents, such as on discipline (table 7.4), there are more significant associations noted in the paternal data, compared to the maternal data. Although there are currently no plans to do so, it is hoped that the GUS study will collect further data from the fathers in future sweeps.

A further reason that some of the differences may be less significant than one would think is that collaboration is not the only important variable. The tables divide collaborators and non-collaborators into those with and without support. In table 7.1, for example, it is demonstrated that it is not just non-collaborators who are less likely to attend antenatal classes, but also those without support. Performing the significance tests on a dependent variable which considers those not in a collaborative relationship who also do not have external support, compared to the other three groups, shows that the associations with attendance at antenatal classes are statistically significant, even when controls are applied.

This same group, who were also highlighted in the last chapter as being affected most by a perceived lack of time, are highlighted in table 7.3, as being the ones who find it difficult to ask for advice, and feeling they are not offered enough advice by professionals such as health visitors and social workers. This can be followed through to table 7.7, where it turns out there is a highly significant association ($p = 0.001$), after controls are applied, between membership of this group and being one of those who had gone against medical advice, and not arranged for their child to receive either the MMR or the separate vaccines. The odds of those who did not get their child vaccinated being in this group of non-collaborators without support were 5 times as large as those for couples who did get their child vaccinated.

The group of non-collaborators without support is actually quite large, 40% of the sample. This, however, does not mean that 40% of the population are at risk of isolation from advice. The size of the group is purely a product of the way variables have been defined, and it must be remembered that two-thirds of this group did not say that it was hard to know who to ask for advice. Within this group, there must be subgroups who are at greater risk of isolation from information or advice, and that remains an important area for future study.

For sources of advice and information on health matters, the most noticeable differences were between those with support, who tended to turn to their own or their partner's parents after their GP, the internal collaborators, who tended to turn to family or friends closer to their own age, and those with neither external support or support from their partner, who were less able to call on either of these groups. The odds of those who used the GP being collaborative were actually 55% greater than the odds for those who had not used the GP, after controls were applied, suggesting more of a willingness to engage with professionals when one had support from one's partner (table 7.2).

One of the more surprising findings was with regards to the few different sources of information used when it came to making decisions about the choice of primary school, whether the parents were collaborative or not. This came out in the interviews, as well as the data, that many parents felt there was little to discuss, as the local primary school was quite adequate. On the other hand, a number of parents did not send their child to the nearest school, choosing instead a Gaelic medium unit, a Catholic school, or a private primary school. These were the parents who searched for more information, although in the less collaborative couples, the lead was very much taken by one parent.

One of the main areas where differences were seen between collaborators and non-collaborators was in terms of discipline (tables 7.4 and 7.5). With respect to smacking, it was internal collaborators in particular who were most likely to adhere to government advice and not use smacking as a form of discipline. After controls

were applied, the odds of respondents who did not agree with the statement "it may not be a good thing to smack, but sometimes it is the only thing that will work" being internally collaborative were more than twice as great as the odds of those who agreed ($p < 0.001$), whereas external collaborators showed no difference from non-collaborators in regard to this statement.

While there were some other significant associations concerning adherence to expert advice, in terms of television viewing habits, and nutrition, caution should be applied in drawing conclusions from these, given that there were also a lot of non-significant findings in these areas. In drawing an overall conclusion, though, one must recall some of the significant findings from the previous chapter, which also demonstrate an adherence to expert advice. For example, the odds of children who had looked at a book on at least six of the previous seven days being collaborative were 2.7 times as great. If mealtimes were often used as a time to talk, the odds of the parents being collaborative were 2.9 times as great.

Overall, there is some evidence that parents who act collaboratively are more likely to adhere to expert advice, but it is not always easy to draw out of the GUS data. In chapter 5, it was shown that most individual parents processed information on a daily basis quite efficiently, to make decisions, whereas it was the collaborative ones who were better able to process information jointly, and come to joint decisions. Thus, some of the findings in this chapter have been masked by the efficient processing of information and advice by individuals, rather than couples, but there is still sufficient evidence coming through to demonstrate a small difference between collaborative and non-collaborative couples.

In the next chapter, I shall look at associations between collaboration and social and behavioural development outcomes for the child.

Chapter 8 – Parental collaboration and a child's social, emotional and behavioural development

"Do not as children badly bred, who eat like little Hogs,
And when they have to go to bed, will whine like Puppy Dogs:
Who take their manners from the Ape, their habits from the Bear,
Indulge the loud unseemly jape, and never brush their hair.
But so control your actions that your friends may all repeat:
'This child is dainty as the Cat, and as the Owl discreet.'"

Hilaire Belloc (excerpt from introduction to The Bad Child's Book of Beasts, 1896)

8.1 Introduction

The idea that there is an association between collaboration and positive outcomes for parents and their children is key to this thesis. I have already demonstrated some such associations in previous chapters, particularly with respect to feelings about the balance between work and family, and the way in which parental time with the child is used. In this chapter, I shall examine another potential positive association, regarding the child's social, emotional and behavioural development.

A number of studies have already looked at the relationship between coparenting or collaborative parenting and a child's development, and found small, but positive

associations (see Teubert and Pinquart, 2010, for a summary of these). Most of these studies, however, only considered small samples within the United States, and were limited in their application of controls.

Two questions were asked in chapter 3 that I will attempt to answer in this chapter.

RQ4: *Is collaboration between parents associated with more favourable reports of a child's social, emotional and behavioural development?*
RQ4a: *Is such association stronger when the family is exposed to multiple risk factors?*

To answer the first of these, it is important to build upon those studies from the US, and show that the same sort of associations can be found in a Scottish sample, using data from the GUS study, and that the associations remain evident when adequate controls are applied. It could be argued that collaboration is simply about the related concepts of paternal involvement and relationship quality. I will therefore aim to demonstrate an association between collaboration and child development, independently of associations involving these other constructs.

Assuming it is possible to demonstrate an association between collaboration and child behavioural development, the question then arises as to the circumstances under which this association holds, or under which it is stronger. Theory suggests that the association may be stronger when the family is exposed to multiple risk factors, but it is necessary to go beyond conventional definitions of risk to explore this. Initial analysis also highlights maternal employment as partially determining the effects of collaboration, so this will be explored further.

The measurement of social, emotional and behavioural development is vital to this chapter. Goodman's Strengths and Difficulties Questionnaire (SDQ) has been used, and this will be discussed in detail.

8.2 A brief review of literature on child social, emotional and behavioural development

The set of academic literature regarding children's development is very large indeed, so to keep the review brief, I have structured it around Goodman's Strengths and Difficulties Questionnaire (SDQ). The term "social, emotional and behavioural development" is not one used by Goodman (1997), but has been used in the Growing Up in Scotland study to describe that which is measured by the SDQ (see section 8.3.1). It is a catch-all term: others may use the phrase "child behaviour", or "child adjustment". Goodman's intention was to produce a questionnaire, which measured both positive and negative aspects of child behaviour. He divided it into five dimensions: emotional symptoms, conduct problems, hyperactivity, peer relationships, and prosocial behaviour.

"Emotional symptoms" refers to internalising behaviour, such as anxiety, nervousness and unhappiness. Positive aspects of coparenting have been shown to be associated with fewer such problems in young children (Kolak and Vernon-Feagans, 2008). A number of studies have also shown that such behaviour in childhood is associated with major incidents of depression or anxiety in adulthood (e.g. Aaronen and Soininen, 2000).

While "emotional symptoms" can be thought of as negative behaviours aimed at the self, "conduct problems" are mainly negative behaviours aimed outwardly (externalising behaviour). These include fighting, lying and being disobedient, as well as throwing temper tantrums. Positive coparenting practices have been found to be negatively associated with such externalising behaviours in pre-school children (Schoppe, Mangelsdorf and Frosch, 2001).

The distinction between "hyperactivity" and "conduct problems" may seem obvious on paper, with hyperactivity referring to degrees of restlessness, distraction, and failures to act before thinking, but in reality, many hyperactive children also have

conduct problems, and so it is rare for studies to distinguish the two, with both being described as "externalising" behaviour. Similarity in parenting practices has been shown to be associated with fewer conduct problems in children with a medical diagnosis of attention deficit hyperactivity disorder (ADHD) (Harvey, 2000). Certain aspects of non-collaboration, particularly hostility between parents of toddlers, have been shown to be associated with ADHD in later years (Jakobvitz et al., 2004). Hyperactivity and conduct problems have together been shown to be associated with criminality in later life (Mordre et al., 2011; Satterfield, et al., 2007). Even elements of behaviour such as temper tantrums in children as young as 3 have been shown to be linked to adult convictions (Stevenson and Goodman, 2001).

The final two dimensions measure different aspects of a child's relationships with other children or adults. The "peer problems" dimension considers behaviours such as being solitary, being bullied, and not having friends. Similarities in parents' beliefs in the use of control in raising children have been shown to be associated with a pre-school child's social competence with their peers (Lindsey and Mize, 2001). Being bullied has been linked to many different childhood issues, such as school adjustment and internalising behaviours (Arseneault et al., 2006). Peer relationship problems in childhood have also been shown to be associated with educational under-achievement and unemployment in adulthood (Woodward and Fergusson, 2000).

The "prosocial" behaviour dimension considers voluntary actions intended to benefit others, such as sharing or being kind, the opposite of antisocial behaviour. While younger children may lack some of the understanding that leads to prosocial behaviour in later life, the positive behaviour that allows young children to work together with their peers forms the basis for civil engagement in later years (Hay and Cook, 2007). The development trajectory of prosocial behaviour does not seem to be as straightforward as that suggested for some of the other dimensions, although there is some evidence for general prosocial dispositions to be continued from childhood into adulthood (Eisenberg et al., 1998; Kokko et al., 2006).

Many studies have demonstrated the importance of parenting practices, such as reading with a child, or the use of discipline, in determining a child's behavioural development (e.g. Bradshaw and Tipping, 2010; Cullis and Hansen, 2008, Kiernan and Huerta, 2008). Similar associations have been demonstrated between parenting styles and child adjustment, with authoritarian parenting having a negative impact, and authoritative parenting a positive one (e.g. Kaufman et al., 2000).

Few studies consider the practices or styles of both parents in relation to a child's behavioural development. Simons and Conger (2007) found that most parents apply the same style of parenting as their partner. Having two authoritative parents was optimal for child outcomes, but having just one, in most cases, still buffered the child from the potential negative effects of less optimal styles.

Two reports published by the Scottish Government in 2010 specifically looked at child behaviour, as measured on the Strengths and Difficulties questionnaire, using data from the Growing Up in Scotland study (Bradshaw and Tipping, 2010; Marryat and Martin, 2010). Marryat and Martin showed that maternal mental health has a significant association with child behaviour, even when controlling for a number of socio-economic characteristics of the family. Other variables they found to be significantly associated with at least one of the subscales included low income, poor parental relationship, being an only child, sex of the child, maternal social class, younger mothers, limited social support, persistent poverty, and living in an area of high deprivation. Bradshaw and Tipping showed that the child's general health is also a significant factor, as are delays in the child's motor development or language development at age 2. Taking children on social visits, frequent interaction with children, and not shouting at or smacking children also had some significant associations, as did being a lone parent, or having re-partnered, and the mother's ethnicity. A third Scottish Government report from the same year also looked at the effects of persistent poverty on child behaviour (Barnes, Chanfreau and Tomaszewski, 2010).

Researchers using data from alternative, but similar studies, such as the Millennium Cohort Study, find a number of other factors to have significant associations with child behaviour. These include maternal depression and stressful life events (Evans et al., 2008); birth weight, birth order, maternal education, maternal employment, being read to every day, watching TV for 3 or more hours a day, living in social housing, being dissatisfied with the area (Cullis and Hansen, 2008); whether the mother returned to employment within 9 months of the birth, type of childcare used while the mother is working (Hansen, Hawkes and Joshi, 2009); and mother's general health (Mensah and Kiernan, 2011).

From this literature, one can see first of all the potential trajectory for those children with social, emotional or behavioural development problems at an early age, and also variables that need to be controlled when looking for an association between collaboration and child development.

8.3 Variables used in the GUS analyses

8.3.1 Goodman's Strengths and Difficulties Questionnaire

Social, emotional and behavioural development is measured in the Growing Up in Scotland study using Goodman's Strengths and Difficulties questionnaire (see Goodman, 1997; Goodman and Scott, 1999). This set of questions has the advantage over alternatives, in that it focuses on positive as well as negative types of behaviour, and that it can be used for children from ages 3 to 16. It is described by Goodman as "short", but at 25 questions, in the context of such a broad study, where space for questions is at a premium, it certainly is not. It has now become established as the standard measure of a child's behavioural development in the major UK birth cohort studies, being used also in the Millennium Cohort Study, the Avon Longitudinal Study of Parents and Children, and the British Cohort Study, as well as in several international studies, such as the Longitudinal Study of Australian Children. The

questionnaire was completed by the respondent at sweeps 2 and 4, as part of the self-completion section of the interview, when the children were just short of 4 years of age, and just short of 6. The sweep 4 variables have been used as the dependent variables in the regression analyses in this chapter.

The 25 items on the questionnaire are divided into 5 groups of 5, each representing separate dimensions of behaviour. The respondent was asked to think about their child's behaviour over the previous six months, and to say whether each statement was "not true", "somewhat true", or "certainly true". The statements about the child are that he or she:

Emotional Symptoms Scale

"Often complains of headaches, stomach-ache or sickness"

"Has many worries, often seems worried"

"Is often unhappy, down-hearted or tearful"

"Is nervous or clingy in new situations, easily loses confidence"

"Has many fears, easily scared"

Conduct Problems Scale

"Often has temper tantrums or hot tempers"

"*Is generally obedient, usually does what adults request*"

"Often fights with other children or bullies them"

"Often lies or cheats"

"Steals from home, school or elsewhere"

Hyperactivity Scale

"Is restless, overactive, cannot stay still for long"

"Is constantly fidgeting or squirming"

"Is easily distracted, concentration wanders"

"*Thinks things out before acting*

"*Sees tasks through to the end, good attention span"*

Peer Problems Scale

"Is rather solitary, tends to play alone"

"*Has at least one good friend*"

"*Is generally liked by other children*"

"Is picked on or bullied by other children"

"Gets on better with adults than with other children"

Prosocial Scale.

"Is considerate of other people's feelings"

"Shares readily with other children (treats, toys, pencils, etc.)"

"Is helpful if someone is hurt, upset or feeling ill"

"Is kind to younger children"

"Often volunteers to help others (parents, teachers, other children)".

A score of 2 is given for each statement that is "certainly true", and 1 for each that is "somewhat true". Where statements are worded the other way round (i.e. about positive behaviour in the first four scales, written in italics above), 2 is given to a statement that is "not true". Missing answers are given the average score of the other items on the scale. The five question scores are summed to give a scale score of 0 to 10 on each scale. A sixth scale, the total difficulties scale is created from the sum of the first four scales, giving a possible range of 0 to 40[19].

The total difficulties scale, the 20 items comprising the first four scales, is the measure that will be used throughout most of the analyses in this chapter, as larger scales tend to be more reliable than shorter ones (Streiner and Norman, 2008). The prosocial scale is not included in the total difficulties scale, as the absence of positive social behaviour was not considered by Goodman to be conceptually related to the existence of psychological difficulties. Each of the scales will, however, be considered separately as well, to see if associations between parental collaboration and each of the five scales differ at all.

[19] Errors were found on the sweep 2 derivations of the SDQ scales on the publicly available datasets. The data managers at ScotCen were informed, and these have now been corrected.

Table 8.1 shows the scores on the total difficulties scale for children aged nearly six of parents who have provided sufficient information to be deemed either collaborative or non-collaborative, that is, those who completed the respondent self-completion section at both sweeps two and four of the Growing Up in Scotland survey (child cohort), the partner interview at sweep 2, and who were still living together at sweep 4. These 1,262 cases form the dataset which has been analysed in the majority of this chapter. 6 of the 9 cases with missing data on the total difficulties scale have scores for at least one of the subscales, and these additional cases are included in analysis of the subscales. The missing data have been disregarded, as they present no obvious bias.

Table 8.1 Scores on the "Strengths and Difficulties Questionnaire" total difficulties scale, for children aged five years and ten months

	Percent	Cumulative Percent
0	2.7%	2.7%
1	5.2%	7.9%
2	6.6%	14.5%
3	9.6%	24.1%
4	8.2%	32.2%
5	9.6%	41.8%
6	9.1%	50.9%
7	9.1%	60.0%
8	7.8%	67.8%
9	6.2%	74.0%
10	5.5%	79.5%
11	3.8%	83.3%
12	3.6%	86.9%
13	3.2%	90.0%
14	2.2%	92.2%
15	2.1%	94.3%
16	1.3%	95.6%
17	1.5%	97.2%
18	0.6%	97.8%
19	0.6%	98.4%
20	0.7%	99.1%
21+	0.9%	100.0%
Sample size	*1,262*	

Growing Up in Scotland, child cohort, sweep 4, weighted

The scale runs from 0 to 40, but as the table shows, very few children are given a score above 20. According to Goodman, around 80% of children should achieve a "normal" score on each scale. He calculated this as being 0 to 13 for the total difficulties scale, but in the sample I am using 0 to 10 would constitute 80%. Goodman, however, made no allowances for the ages of children, so some of this difference may be down to age. In the Growing Up in Scotland sample, the mean score actually fell from 7.8 at age 3 years 10 months, to 7.1 at age 5 years 10 months, although that does not mean that there will not be a greater spread of scores at higher ages as a substantial minority of children run into more behavioural difficulties as they get older. Under the age of four, one may expect behaviour like throwing temper tantrums or having a short attention span to be more common than among those two years older, so this apparent improvement in behaviour is not surprising. Another difference between the sample being used and Goodman's sample is the absence of lone parents. The mean score for children of lone parents is higher than for children of couples.

Table 8.2 show the range of scores on each of the subscales. For the first four scales, a lower score indicates fewer difficulties, so the "normal" scores are at the lower end of the scale. Again, Goodman suggests 80% should fall in the normal range for each scale. This equates to a score of 0 to 2 on the conduct problems and peer problems scales, 0 to 3 on the emotional symptoms scale and 0 to 5 on the hyperactivity scale. For the prosocial scale, a higher score indicates more positive behaviour, with a score of between 6 and 10 being in the "normal" range.

Goodman then describes a further 10% as borderline, and the final 10% abnormal. No indication is provided as to why he chooses an 80:10:10 split. Considering abnormal hyperactivity, for example, to be equivalent to suffering from ADHD, one would expect to find 7 to 8% of children to be in the abnormal range, although at the time of Goodman's initial design, this would have been estimated at 3 to 5% (Antshel et al., 2011). Where analysis is based on the "borderline" or "abnormal" ranges, it should be borne in mind that these are Goodman's definitions. Despite any misgivings about the terminology, they are used to be consistent with other published

works (e.g. Bradshaw and Tipping, 2010), and because an 80% cut off provides a useful split in the data for exploring associations with the top end of the scales.

Table 8.2 Cumulative scores on the "Strengths and Difficulties Questionnaire" subscales, for children aged five years and ten months

	Emotional symptoms	Conduct problems	Hyperactivity	Peer problems	Prosocial
0	42.0%	26.9%	10.3%	50.4%	0.2%
1	67.2%	52.6%	27.5%	74.6%	0.2%
2	81.3%	76.4%	42.8%	86.1%	0.3%
3	89.7%	90.0%	57.1%	93.1%	0.7%
4	95.1%	96.4%	72.2%	97.1%	1.6%
5	98.0%	99.2%	83.5%	98.9%	7.1%
6	99.2%	99.8%	89.9%	99.7%	16.5%
7	99.6%	99.9%	94.2%	99.8%	27.6%
8	99.9%	99.9%	96.5%	100.0%	43.6%
9	100.0%	100.0%	99.4%	100.0%	67.9%
10	100.0%	100.0%	100.0%	100.0%	100.0%
Sample size	*1,267*	*1,267*	*1,265*	*1,265*	*1,266*

Growing Up in Scotland, child cohort, sweep 4, weighted

8.3.2 Paternal involvement and relationship quality

In section 8.5.2, collaboration is compared against the related concepts of paternal involvement and relationship quality, also measured at sweep 2. Both of these concepts can be operationalised as scalar variables, but in order to make a fair comparison, they have been converted to binary variables. This has the effect of reducing the amount of information captured in each of these variables, so that they are on a par with the collaboration variable. The cut points have been chosen so as to maximise the statistical significance for their associations with the SDQ total difficulties score (i.e. minimise the value of p and maximise the Wald statistic), so that variation in the SDQ score that is due to paternal involvement or relationship quality is unlikely to be misattributed to collaboration.

Paternal involvement is calculated using the seven questions used in the joint involvement dimension of collaboration:

Can you tell me how often you do these activities with {him}?
bath {him}?
read to {him}?
play with {him}?
cuddle {him}
And how often do you just chat or talk to {him}
How often do you dress {childname}?
And how often do you get {him} ready for or put {him} to bed?

Responses were coded 1 to 5 for each question (from less than once a week, to more than once a day). Each variable was standardised, and the standardised scores were summed to give a scale with the range of -19.3 to +10.4. Cases with one or two missing answers were scaled up appropriately. Reliability analysis suggested this was a reasonably coherent scale (Cronbach's alpha = 0.682). The chosen cut point was 0, with 55% of the sample being assessed as so highly involved.

Issues with these questions, such as the meaning of bathing a child twice a day, and whether involvement really is sufficiently assessed by looking only at activities involving direct contact with the child, were considered in chapter 4.

The quality of the parents' relationship is calculated using both maternal and paternal responses to eight of the nine relationship questions, some of which were used in the supportive relationship dimension of collaboration. The one question which is not included is the one which was used in the common aims dimension, regarding frequency of disagreements over issues relating to bringing up the child, as that clearly measures collaboration, rather than the quality of the relationship. The other eight questions are:

My {partner} is usually sensitive to and aware of my needs
My {partner} doesn't seem to listen to me
I sometimes feel lonely even when I am with my {partner}
I suspect we may be on the brink of separation
How often do you and your {partner} go out together as a couple in your leisure time without {childname} (or any other children)?
How often do you and your partner argue?
How often is there anger or hostility between you and your partner?
How often do you have arguments with your partner that end up with people pushing, hitting, kicking or shoving?

The first four questions are on a scale of 1 to 5, from "strongly agree" to "strongly disagree". The fifth is on a scale of 1 to 4, from "once a week or more" to "hardly ever / never". The final three are on a scale of 1 to 3, from "more than once a week" to "not at all" for the maternal responses, and on a scale of 1 to 4, from "never" to "often" for the paternal responses. Response categories were reversed for question 1 and 5, and for the paternal responses to questions 6, 7 and 8, so that higher values were always indicators of better relationship quality. Variables were standardised, and the scores were summed, to give a scale with the range of -42.7 to +17.1. Where data for one parent were missing, their values were imputed from data for the other parent. Cases with up to two missing answers for both parents were scaled up appropriately. Reliability analysis suggested this was a good scale (Cronbach's alpha = 0.782). The chosen cut point was 6, with around a quarter of the sample having a relationship measured as of such high quality.

8.3.3 Control variables

A number of variables were considered as controls in the regression analyses. These are based on the predictors of social, emotional and behavioural development taken from the literature review (section 8.2). Variables were derived in the same manner

as those used in other GUS analyses (Barnes, Chanfreau and Tomaszewski, 2010; Bradshaw and Tipping, 2010; Marryat and Martin, 2010), unless it was thought possible to improve upon the derivation. In addition, where the literature only mentioned variables relating to one parent, such as maternal education, the relevant variable from the other parent was also considered.

As with previous chapters, details of all the control variables considered for the regression analyses are provided in appendix A8.

8.3.4 Risk due to multiple disadvantage

Two definitions of being at risk due to multiple disadvantage have been used for the analysis in section 8.5.6. The first considers children at risk of having social, emotional or behavioural problems. A model for the SDQ total difficulties score was built, using all the non-parenting variables identified as significant predictors of total difficulties in table 8.5 (model 1). This allows each study child to be given a predicted score on the total difficulties scale, which is likely to differ from the exact one. The 20% with the highest *predicted* scores were defined as "at risk of problem behaviour".

The second definition of being at risk concerns being at risk of social exclusion. This is described in Cabinet Office publications as being in a situation of multiple disadvantage, when factors such as parents being out of work, on low income, unable to afford food and clothing, parents having mental health problems, longstanding illnesses or disabilities, and parents without qualifications, compound (Social Exclusion Task Force, 2007). There are many alternative definitions of social exclusion, many of which focus on multiple dimensions of deprivation (Levitas et al., 2007). The strict Cabinet Office definition would split the dataset too unevenly for any useful analysis, with only around 1% of families being defined as "at risk", experiencing five or more of the risk factors. However, a more relaxed definition

could increase the size of the group sufficiently for some useful analysis to be conducted.

In order to create a workable split in the data, children "at risk of social exclusion" are defined as living in families where three or more of the following apply:

neither parent in work
a parent in receipt of low income or disability benefits
having a mother with no qualifications above the level of standard grade
living in rented accommodation
living in temporary or repeated income deprivation
living in an area of multiple deprivation

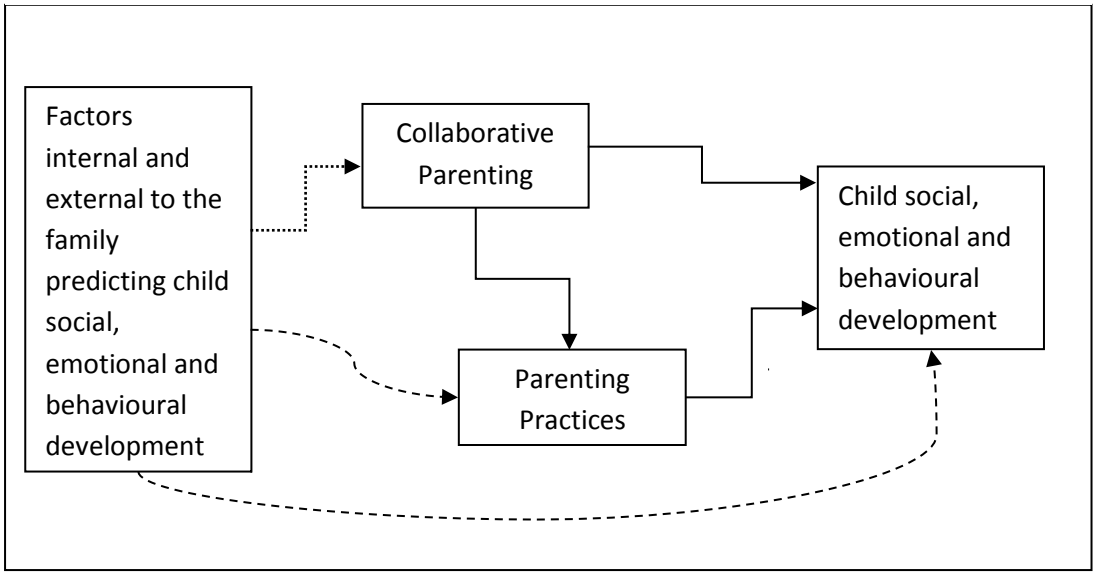
All of these are commonly used indicators of social exclusion, although a greater range of indicators would have been preferable (see Levitas et al., 2007 for a review of analysis of social exclusion). Neither measure can be said to indicate the same level of risk as defined by the Cabinet Office, but both are at least indicative of multiple disadvantage.

8.4 A model for the association between collaboration and social, emotional and behavioural development

In the previous chapters, a model was constructed to show the association between collaboration and a number of other variables, using collaboration as the dependent variable. In this chapter, I will be looking at the association between collaboration and a child's social, emotional and behavioural development. While a similar set of models could be constructed, the theories covered in chapter 3 discuss collaboration as a predictor of a child's development, and therefore the models constructed will have variables representing scores on the SDQ as the dependent variables. The

models are still such that they can only demonstrate an association, rather than any causality. They are summarised in figure 8.1.

Figure 8.1 Model of collaboration as a mediating factor in the relationship between family and environmental factors and a child's social, emotional and behavioural development



The model shows the characteristics of the family and its individual members, be they risk factors or protective factors, as well as factors relating to the family's environment, all influencing child behaviour, both directly and indirectly, through the way in which parents act. Direct and indirect effects of parental collaboration are also shown, the latter through the way in which individual parents act.

The language of risk factors and protective factors comes from the study of resilience. In practice, however, the two shall be treated no differently, with a risk factor being the absence of a protective factor, or vice-versa. For example, a high level of maternal education could be said to be a protective factor, while a low level is a risk factor. Environmental factors will also be treated in the same way, as inputs to a regression model. For reasons discussed in chapter 4, little is gained by constructing a multi-level model using the GUS data, so environmental factors are best treated in the same manner as the family level factors.

In chapter 6, I built a model demonstrating the associations between the factors on the left hand side of this model and collaboration, as indicated by the dotted lines. The focus of this chapter, however, is the route from collaboration to child behaviour, both direct and indirect, the solid lines in figure 8.1. The dashed lines in the diagram represent some of the other relationships between the different elements of the model, for which one needs to control in order to demonstrate the associations of interest.

This model still has two major drawbacks. Firstly, it cannot account for all factors which influence child behaviour. Inputs to the model are limited by the availability of data. For example, it is not possible to control for genetic factors which may affect behaviour. Twin studies have shown genes to have a considerable influence on child behaviour (see, e.g. Collins et al., 2000; Hoekstra et al., 2008). It is possible to partially address this issue by introducing a lagged dependent variable. Unfortunately it is not possible to similarly account for change in other variables, including collaboration, using the GUS data, so such a dynamic model, while having much greater explanatory power than the simpler models demonstrated in this chapter, does not help with the research questions.

The second major drawback is that the model is linear. It goes from left to right. While this may be fine for many factors: a child's behaviour cannot influence the ethnicity of his or her parents, the same is not true if we are looking at, say, maternal stress. The relationship here goes both ways, with stress affecting behaviour and behaviour affecting stress. This issue has been partially dealt with by looking at behaviour at a later point in time than the inputs to the model, as clearly behaviour at age nearly six cannot affect stress at age nearly four. However, behaviour at the later age is likely to be influenced by behaviour at the earlier age, which could influence stress levels at that age.

The question of where to place a variable measuring stress in such a linear model can be addressed by looking at transcripts of the interviews. Three of the 40 people interviewed suggested that a significant stressor within the household was the lack of

collaboration with their partner. As was seen in chapter 5, Andrew Dewar[20] became quite frustrated with the way his wife spoiled their children, and what he perceived as an unwillingness on her part to change her behaviour. Julie Kemp was also stressed by a lack of collaboration with her partner, when she felt she was the one who was left to discipline the children all the time. And Daliya Nazir often became stressed when non-collaborative behaviour led to arguments with her husband. What could be viewed as a minor situation, such as when Daliya's husband allows their children to eat dessert without finishing their main course, becomes much more significant when Daliya feels undermined by his actions and an argument ensues.

Stress was, however, much more commonly viewed as an external influence on the household. Every single couple mentioned at least one stressful influence on the family, although the way they dealt with such stressors varied considerably. Many of the couples had gone through a period of bereavement, following the death of one of their own parents. Others found work stressful, or builders, moving house, relationships with the extended family, or a lack of money. Around a quarter of the parents interviewed, particularly the less collaborative ones, also mentioned the children causing them stress, especially when they fought with each other, although there was often a clarification, that this was stress in the sense of annoyance, rather than in the medical sense. Given these findings, stress is probably best placed as one of the family risk factors, on the left-hand side of the model, although recognising that in doing so, I am ignoring any indirect route between collaboration and child behaviour via stress. The model will also over-emphasise the importance of stress, as it includes the reciprocal part of the association, whereby child behaviour affects stress levels.

Parenting practices have been placed in the model between collaboration and child behaviour. This is because, from a theoretical perspective, parenting practices cannot affect collaborative behaviour, while collaboration can affect practices, although it does not necessarily do so. When constructing the actual models, parenting practices

[20] Note that all names and other potential identifiers have been changed, to protect the anonymity of participants in the research

will be treated in the same way as all the other control variables. Further tests will then be run to determine how much of any association between the parenting variables and the outcome variables can be put down to collaboration.

The regression modelling methods used in this chapter are discussed in chapter 4 (section 4.6.3). Most of the tables presented show linear regression models, with a dependent variable of the square root of the total difficulties score. It is necessary to use the square root, rather than the actual score, to meet the assumptions of linearity required for the modelling process (see appendix A4). This transforms the distribution of scores into a more normal one, which allows a more accurate statistical model to be generated. This has an effect on the way the coefficients in the model should be interpreted. The difference between scores at the higher end of the scale has been reduced compared to those at the lower end, so for example, a difference between a score of 4 and a score of 1 is considered to be equivalent to a difference between a score of 16 and a score of 9, as when the square roots are taken, the difference is 1 in both cases. An assumption is thus introduced, that it is easier to improve on "poor" (higher) scores than it is on lower ones. Mathematically, this is clearly true, as large improvements cannot be made on low scores, as they are bounded by the zero point. Further models, shown in the appendix, use binary logistic regression, with dependent variables of above average or borderline / abnormal scores on each of the subscales of the SDQ, and ordinal regression on each of the subscales, banded to aid the modelling process.

8.5 Findings

8.5.1 The relationship between collaborative parenting and a child's social, emotional and behavioural development

Table 8.3 shows the mean scores for children of collaborative and non-collaborative parents on each of the different scales produced from the Strengths and Difficulties questionnaire. The first four scales are each scored from 0 to 10, with 0 meaning that the respondent gave no negative responses to any of the questions (i.e. responded *"not true"* to all the negative behaviour questions, and *"certainly true"* to all the positive ones). A score of 10 would imply that the respondent identified difficulties relating to all the items on the scale. The prosocial scale, also ranging from 0 to 10, was ordered the other way, so a higher score implies more positive social behaviour. The total difficulties score was simply the sum of the scores from the first four scales.

The table shows that there is a mean difference of around 0.4 points on each of the difficulties scales, which combine to provide a difference of 1.7 points on the total difficulties scale. A slightly higher difference of almost 0.6 points can be seen on the fifth, prosocial scale. A t-test for equality of the mean scores shows that all the differences are statistically significant at the 1% level.

Table 8.3 Mean "Strengths and Difficulties" scores for children of collaborative parents, at age five years and ten months

	Collaborative Parenting			Mean Difference	95% Confidence Interval of the Difference		t-test for Equality of Means significance
	Yes	No	All		Lower	Upper	
	Mean Score						
SDQ: Emotional symptoms score	0.98	1.37	1.28	0.39	0.21	0.57	0.000
SDQ: Conduct problems score	1.24	1.69	1.59	0.45	0.27	0.63	0.000
SDQ: Hyperactivity score	2.95	3.36	3.26	0.41	0.12	0.70	0.005
SDQ: Peer problems score	0.67	1.10	1.01	0.43	0.28	0.58	0.000
SDQ: Prosocial score	8.80	8.21	8.34	-0.59	-0.79	-0.40	0.000
SDQ: Total difficulties score	5.80	7.51	7.12	1.72	1.18	2.25	0.000
Sample size	*297*	*965*	*1,262*				

Growing Up in Scotland, child cohort, sweep 4, weighted
Equal variances not assumed

Taking the emotional symptoms scale as an example, the mean score of 0.98 (rounded to 1 for simplicity) for children of collaborative parents means that, on average, each respondent in that category said one of the items on the scale (*"often complains of headaches, stomach-ache or sickness"; "has many worries, often seems worried"; "is often unhappy, down-hearted or tearful"; "is nervous or clingy in new situations, easily loses confidence";* and *"has many fears, easily scared"*) was *"somewhat true"*, while the other four were *"not true"*. In fact, around half the parents answered *"not true"* to all five items on this scale, and just over a quarter answered *"certainly true"* to at least one question, or *"somewhat true"* to two or more.

The score of 1.37 for children of non-collaborative parents implies that a respondent from that group was more likely to give a more negative response to the set of questions than a respondent from the group of collaborative parents, but that difference is less than half of one point on one item in the scale. 40% of non-collaborative parents actually answered *"not true"* to all five items. Differences of less than half of one point may not appear very large, but given the very limited spread of scores on some of the scales, as shown in table 8.2, these differences are statistically significant. Nothing should be read into the slightly larger mean difference for the prosocial scale, as the confidence intervals (ignoring the negative signs, which are due to the way the scores were calculated) show that the mean difference lies in the same sort of range for all five of the smaller scales. The similarity of the differences in the means for all five scales suggests that the association between collaborative parenting and child behaviour is roughly the same, no matter what aspect of child behaviour is examined, although, given the greater spread of scores on the hyperactivity scale, the difference in scores on this scale is less statistically significant. This is reflected in the outcome of the t-tests, where the difference in means on the hyperactivity scale is not significant at the 0.1% level, unlike on the other scales. The similarity of the difference in means suggests it is reasonable to use the overall total difficulties score in subsequent analysis, without losing too much of the understanding about how a child's behaviour is affected.

8.5.2 Collaboration, paternal involvement, relationship quality and children's behavioural development

A simple regression model can show the difference in effect sizes of collaboration, paternal involvement, and the quality of a relationship on a child's behavioural development. Table 8.4 shows that collaboration alone can be said to account for 2.3% of the variation in score on the SDQ total difficulties scale. This may not appear very high, but such values are not unusual when using binary variables to predict child outcome variables, which may be influenced by many different factors. The paternal involvement variable actually accounts for only a third of that amount of variation, while the relationship quality variable accounts for almost 4%.

When the three variables are entered into the model together (model 4), the association between collaboration and child behaviour remains significant at the 1% level, although its strength is reduced. While relationship quality remains a stronger predictor of a child's total difficulties score than does collaboration, there is a clear independent association between parental collaboration and the child's score. Hence, the collaboration variable is measuring a clearly distinct concept from those measured by the relationship quality and the paternal involvement variables, even though it contains elements of each within its operationalisation.

It is not clear whether the relative effect sizes for these three variables is due to the three concepts being measured, or whether it is at least partially due to their operationalisation. Binary variables for paternal involvement and relationship quality are included as controls in the following sections, despite their association with collaboration.

Table 8.4 Associations between collaboration, paternal involvement and relationship quality, and score on the SDQ total difficulties scale, sweep 4

	Model 1: Collaboration		Model 2: Binary variables for paternal involvement		Model 3: Binary variables for relationship quality		Model 4: Collaboration and binary variables	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Collaborative parenting								
Collaborative	-0.336	*.000*					-0.201	*.002*
Base category: non-collaborative								
Paternal involvement (binary)								
Higher paternal involvement			-0.166	*.001*			-0.091	*.053*
Base category: Lower paternal involvement								
Relationship quality (binary)								
High quality relationship					-0.436	*.000*	-0.365	*.000*
Base category: Lower quality relationship								
Intercept	2.580	*.000*	2.592	*.000*	2.597	*.000*	2.677	*.000*
Sample size	*1,262*		*1,262*		*1,260*		*1,260*	
R square	.023		.008		.038		.050	

Growing Up in Scotland, child cohort, weighted
Dependent variable: square root of SDQ total difficulties score, sweep 4

8.5.3 A complete model for the prediction of a child's social, emotional and behavioural difficulties

Table 8.5 shows the relationship between collaborative parenting and a child's social, emotional and behavioural difficulties, while controlling for the key parenting, demographic and household characteristics already identified. Four linear regression models are shown, each with minor differences. The first consists of control variables only. This can be compared with the second, when collaboration is introduced, as an indication of the improvement in the predictive power of the model attributable to collaboration. The third additionally includes the measure of relationship quality, to demonstrate that some of this improvement is due to the relationship aspect of collaboration. The final model introduces an interaction effect to further improve the model.

The first model is built only from the control variables described in appendix A8. While it would be possible to account for more of the variation in the dependent variable, using more of the controls, this model is considered to be optimal, in that it accounts for the largest amount of variation in the dependent variable, while including only those which have an independent statistically significant association with the dependent variable, and not violating any of the assumptions of linear regression modelling.

Variables with positive coefficients can be considered as "risk factors", those which are associated with an increase in total difficulties. Those with negative coefficients can be considered "protective factors", being associated with a decrease in the total difficulties score. In all cases, the coefficients should be interpreted in relation to the base category. Collaborative parenting (in model 2) acts as a protective factor, compared to the base category of non-collaboration. Had the variable categories been entered into the regression model in the reverse order, so "collaborative" was the base category, the sign of the coefficient would have been reversed, and one could say that non-collaboration was a risk factor of an increase in difficulties.

Table 8.5 Associations between key parenting and household characteristics, and score on the SDQ total difficulties scale

	Model 1: Without collaboration		Model 2: With collaboration		Model 3: With collaboration and relationship qual.		Model 4: With interaction effects	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Collaborative parenting				*.002*		*.022*		*.003*
Collaborative			-0.217	*.002*	-0.166	*.022*	-0.340	*.001*
Base category: non-collaborative								
Relationship quality						*.007*		*.005*
High quality relationship					-0.193	*.007*	-0.198	*.005*
Base category: Lower quality relationship								
Parents read to child		*.030*						
No more than a few times a week	0.131	*.030*						
Base category: On most days								
Frequency of visits to friends with young children				*.047*				*.048*
Less than once a fortnight			0.109	*.047*			0.110	*.048*
Base category: At least once a fortnight								
Parents paint or draw with child		*.000*		*.001*		*.001*		*.001*
No more than a few times a week	0.175	*.000*	0.172	*.001*	0.174	*.001*	0.166	*.001*
Base category: On most days								
Parents sing or recite nursery rhymes with child		*.006*		*.007*		*.008*		*.008*
No more than a few times a week	0.184	*.006*	0.181	*.007*	0.178	*.008*	0.171	*.008*
Base category: On most days								
Study child's birth order		*.001*		*.001*		*.001*		*.001*
Third or later	-0.268	*.001*	-0.255	*.001*	-0.240	*.002*	-0.246	*.001*
Second	-0.210	*.001*	-0.199	*.002*	-0.198	*.002*	-0.202	*.002*
Base category: First								
Delays in language development		*.002*		*.006*		*.003*		*.004*
Yes	0.173	*.002*	0.156	*.006*	0.166	*.003*	0.158	*.004*
Base category: No								
Child's general health		*.012*		*.011*		*.020*		*.019*
At least one sweep in fair or poor health	0.213	*.012*	0.217	*.011*	0.195	*.020*	0.190	*.019*
Base category: Always good or very good								
At least one parent not in good health		*.010*		*.006*		*.008*		*.007*
Yes	0.152	*.010*	0.155	*.006*	0.152	*.008*	0.151	*.007*
Base category: No								
Maternal stress		*.000*		*.000*		*.000*		*.000*
High (4+)	0.541	*.000*	0.515	*.000*	0.498	*.000*	0.499	*.000*
Moderate (3)	0.237	*.000*	0.216	*.001*	0.194	*.004*	0.200	*.003*
Base category: Low (0-2)								

	Model 1: Without collaboration		Model 2: With collaboration		Model 3: With collaboration and relationship qual.		Model 4: With interaction effects	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Mother's age at birth of study child		*.003*		*.000*		*.001*		*.000*
Under 25	0.274	*.001*	0.293	*.000*	0.292	*.000*	0.325	*.000*
25 to 29	0.123	*.082*	0.144	*.047*	0.154	*.036*	0.164	*.030*
35 and above	-0.042	*.572*	-0.060	*.424*	-0.046	*.541*	-0.058	*.437*
Base category: 30 to 34								
Difference in parents' ages		*.012*		*.009*		*.007*		*.007*
Mother older by at least 5 years	0.314	*.024*	0.311	*.023*	0.319	*.015*	0.326	*.016*
Father older by at least 5 years	-0.088	*.136*	-0.096	*.095*	-0.092	*.114*	-0.091	*.119*
Base category: Similar ages								
Highest level of qualification of mother		*.001*		*.001*		*.001*		*.001*
No qualification	0.308	*.026*	0.289	*.043*	0.292	*.035*	0.296	*.040*
GCSEs / Standard Grades / NVQ level 2 or below	0.310	*.000*	0.303	*.000*	0.306	*.000*	0.302	*.000*
A levels / Highers / NVQ level 3 or equiv	0.177	*.006*	0.175	*.007*	0.169	*.007*	0.169	*.006*
HNC, HND, NVQ level 4 or equiv	0.218	*.011*	0.223	*.007*	0.235	*.005*	0.223	*.006*
Base category: Degree / NVQ level 5 or equiv								
Support network		*.003*		*.011*		*.007*		*.020*
None or few close relationships	0.247	*.001*	0.214	*.003*	0.226	*.001*	0.213	*.005*
Some close relationshiops	0.070	*.172*	0.059	*.243*	0.061	*.225*	0.054	*.300*
Base category: Many close relationships								
Mother employed		*.030*		*.014*		*.009*		*.008*
Not working	-0.151	*.041*	-0.160	*.028*	-0.168	*.019*	-0.182	*.028*
Part-time	-0.014	*.813*	-0.008	*.896*	-0.011	*.844*	-0.090	*.177*
Base category: Full-time								
Income deprivation		*.029*		*.043*		*.050*		*.028*
Repeated	0.193	*.087*	0.182	*.098*	0.183	*.098*	0.212	*.044*
Temporary	0.263	*.013*	0.247	*.020*	0.238	*.026*	0.239	*.026*
Base category: No								
Material deprivation (children)		*.022*		*.023*		*.036*		
Unable to afford two or more items	-0.103	*.668*	-0.102	*.684*	-0.085	*.713*		
Unable to afford one item	0.209	*.009*	0.204	*.009*	0.197	*.014*		
Base category: Able to afford all items for children								
Interaction: collaboration*maternal employment								*.033*
Collaborative and not working							0.052	*.760*
Collaborative and part-time							0.313	*.016*
Base category: Non-collaborative or full-time								
Intercept	1.922	*.000*	1.908	*.000*	2.059	*.000*	2.112	*.000*
Sample size	*1,107*		*1,107*		*1,108*		*1,107*	
R square	.248		.257		.261		.263	

Growing Up in Scotland, child cohort, weighted
Dependent variable: square root of SDQ total difficulties score, sweep 4

The control variables in model 1 account for 25% of the variation in the total difficulties score. When collaboration is introduced (model 2), this increases by just under 1 percentage point. The introduction of collaboration leads to a reduction in the significance of the variable for reading to one's child daily, such that it rises above the 5% level, and is consequently dropped from the model. This is a clear indication that collaboration is associated with particular parenting practices, including reading with a child.

Risk factors for the child, as demonstrated in model 2 in the table, include not making regular visits to other parents with young children at age 2 years and 10 months; not having a parent paint or draw with her or him daily at age 2 years and 10 months; not having a parent sing or recite nursery rhymes daily with him or her at age 2 years and 10 months; being first born; having delayed language development; not being in good health; having a parent in poor health; having a stressed mother; having a mother who was under 30 at the time of birth; having a mother at least five years older than one's father; having a mother who does not have a degree; having a mother with no or few close relationships; having a mother who works; living in income deprivation; and living in a home where the parents are unable to afford something for their children. Some of these may be better interpreted in the inverse, in particular, making regular visits to other parents with young children, having a parent paint or draw with them daily, or having a parent with whom one sings or recites nursery rhymes could be considered as protective factors.

Caution must be applied when interpreting some of these variables. For example, the inclusion of painting or drawing with a child in the model, while playing with them is excluded does not mean parents wanting to improve a child's behaviour should stop playing with them and get out a paint brush. Both variables are based on a single question at sweep one of the data, and responses are correlated with each other. It may simply be that most toddlers play with a parent on a daily basis, so the lack of variation in the responses makes this variable less useful in model building, whereas just under half the toddlers in the sample painted or drew with a parent on a daily

basis (see appendix A8 for a description of these variables). Thus, rather than being specifically about drawing or painting, the variable could be interpreted as simply being in the 50% of toddlers whose parents are most likely to encourage them in creative pursuits, not just at age 2 years 10 months, but throughout early childhood.

The material deprivation variable is also difficult to interpret, as, while there is a negative effect of being unable to afford one of the items on the list, there is no significant effect of being unable to afford more than one of the items. This is probably due to the association of this variable with the one for income deprivation, even though the association is not deemed strong enough to cause concerns for the modelling process. The control variables, however, are not the focus of this study, so their exact interpretation is of lesser importance, just that they have been used to control variation in the data. Thus, the relationship between collaborative parenting and social, emotional and behavioural development, demonstrated in table 8.5, can be said to be independent of the controls.

The "significance" columns of table 8.5 show the level of statistical significance for each independent association with the dependent variable of the total difficulties score. A value of 0.002 for the collaborative parenting variable in model 2 means that the relationship is statistically significant at the 1% level, once all controls have been taken into consideration. Thus, one can have a high degree of confidence that the association is not a spurious one. All the variables included in the models demonstrate independent associations with the total difficulties score, which are statistically significant at the 5% level, although where a variable has more than two classes, each class does not necessarily differ significantly from the base category.

When the relationship quality variable was introduced, in model 3, the significance of the collaboration variable drops, to 0.022. The variable for paternal involvement was also introduced into the model at this stage, but was not found to have a significant association with the dependent variable, so it was removed again.

The coefficients in table 8.5 can be used to construct an equation that predicts the way mothers of children aged 5 years and 10 months would respond to the Strengths and Difficulties Questionnaire, should sufficient information about their circumstances be available. The form of this equation is shown in appendix A4.

Looking at model 2 in table 8.5, all of the predictor variables are binary, taking values 0 and 1 only. Variables with more than two categories, such as the mother's highest level of education, have been split into a series of binary variables, one fewer than the number of categories, taking the value 1 to represent being in the category and 0 for not being in the category.

Say, for example one were to know that the parents of a boy aged just under six, with two older siblings, acted collaboratively, and said that they recited nursery rhymes with him on most days. Say one also knew that the mother was educated to the level of standard grade, and for the sake of simplicity, all other variables fell into the base category, then one could predict the total difficulties score that may be awarded to the child by plugging the coefficients into the equation.

$$y = 1.908 - 0.217 - 0.255 + 0.303 = 1.739$$

Here, the first term is the intercept. The second term is the coefficient for "collaborative parenting", multiplied by a value of 1, as the parents are in the non-base category, of "collaborative". The third term is because the child is third born. The fourth term is the coefficient for the mother being educated to the level of standard grade. All the other terms, including having parents who recite nursery rhymes with him daily, take a value of 0, because they are in the base category. From this equation, a value of 1.739 is predicted for the dependent variable, which needs to be squared, to get the predicted score on the total difficulties scale. This value, of 3.024, as one can see from table 8.1, is around the 24th percentile of the scale. In reality, only whole numbers can be achieved on the Strengths and Difficulties scales, so it would be more correct to predict a score of 3.

The value of the coefficient for the association between collaboration and child behaviour is -0.217. At the mean total difficulties score, of 7.1, the change in predicted score when parents act collaboratively would be around 1.1, decreasing to 6.0. At a lower score, of, say, 4, the improvement in the predicted score would be around 0.8, whereas at a higher score, of, say, 13, the improvement would be around 1.5. The magnitude of each of these is still less than the value of 1.72 for the differences in the mean total difficulties scores for collaborative and non-collaborative parents given in table 8.3. This means that a considerable proportion of the association originally seen can better be interpreted as spurious, only evident because variables such as having stressed or well-qualified parents are associated with both collaboration and child behaviour. In fact, the difference in means for the square root of the total difficulties score, with no controls, is 0.336, so around one third of this can be interpreted as spurious. Using model 3 instead, around one half would be interpreted as spurious.

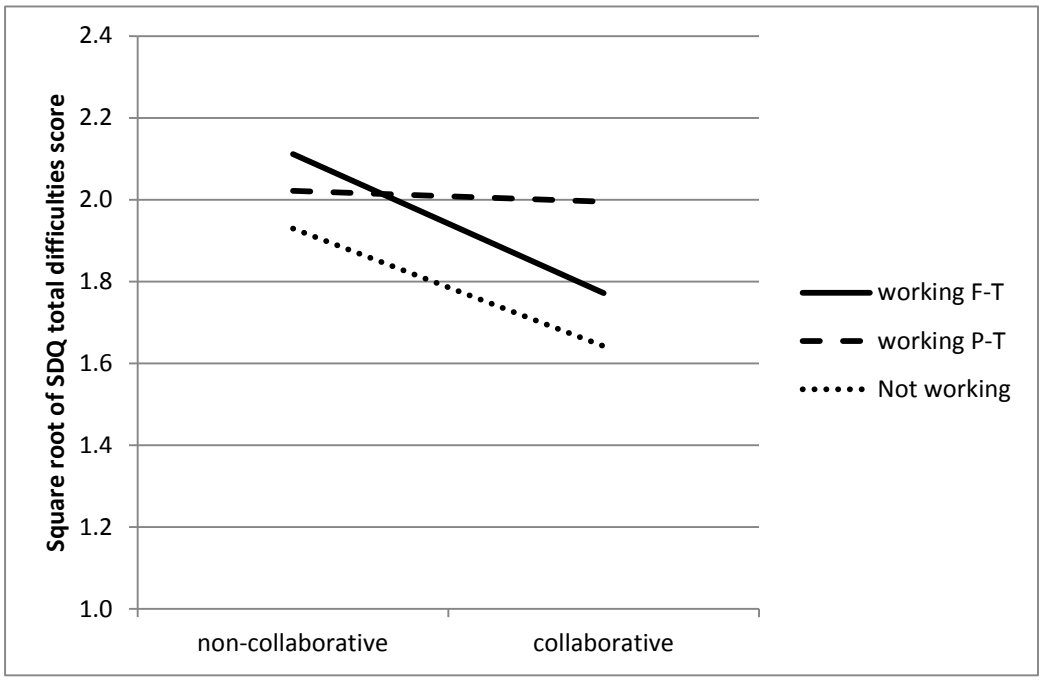
Some of this spurious element, however, may not actually be spurious, but due to the indirect association between collaboration and child behaviour, through parenting practices. To calculate the size of this element, it is necessary to calculate the proportion of each of the other parenting variables that is due to collaboration, using appropriate controls, and to multiply this by the relevant coefficients in table 8.5 for the association between the parenting variables and the dependent variable.

In fact, when logistic regressions are conducted, using each of the three parenting variables included in model 2 as dependent variables, no significant associations with collaboration are evident. Introducing the collaboration variable after other controls improves the models by no more than 0.001 on any of the pseudo R square measures. Thus, the indirect route from collaboration to child behaviour via these particular parenting practices can be effectively dismissed. Stronger associations can be seen between collaboration and other parenting practices, such as reading to the child, which collaboration replaced in the model. In such a case, the improvement in pseudo R square measures is still small, less than 0.02, so where reading to a child is shown to be associated with some of the subscales of the Strengths and Difficulties

Questionnaire (see appendix A9), the indirect route from collaboration to, say, below average conduct problems, via parenting practices can still be dismissed as adding only a very small amount to the strength of the direct association. There still remains an association between collaboration and reading to the child, as was seen in chapter 6, but there are also many other factors involved, which all have a claim to affecting reading practices.

Model 4 in table 8.5 includes an additional term for the interaction between collaborative parenting and maternal employment. The existence of a statistically significant interaction term means that these two variables should not be looked at in isolation. It suggests that the two interacting variables are not independent of each other. One is effectively considering the association between collaboration and child behaviour in three different situations: when the mother is employed full-time, when she is employed part-time, and when she is not in employment. The effect of these interactions can be seen by looking at figure 8.2.

Figure 8.2 For the linear regression model for child's SDQ score, graph showing the interaction between the predictors collaboration and maternal employment



The chart makes it clear that there is no association between collaboration and score on the total difficulties scale when the mother is working part-time. When she is working full-time, or not at all, scores for the children of collaborative parents are lower than those for the children of non-collaborative parents (holding all other factors in the base categories). The implications of this will be discussed in section 8.5.5.

In the next section, the idea of social, emotional and behavioural development is broken down further into the five dimensions of the Strengths and Difficulties Questionnaire.

8.5.4 Associations between collaborative parenting and subscales of the Strengths and Difficulties Questionnaire

In examining associations with each of the subscales of the Strengths and Difficulties Questionnaire, it is not possible to use linear regression, for reasons discussed in chapter 4. Instead, both logistic regression and ordinal regression analysis have been used. The logistic regression uses two different dependent variables for each of the subscales, the first identifying borderline or abnormal scores on each scale, and the second below average scores (above average for the prosocial scale). The ordinal regression uses banded scores for each scale as the dependent variable, to ensure sufficient cases fall into each band. Details of the regression analyses are provided in appendix tables A9.1 to A9.10, with an explanation of the modelling process in appendix A4.

The tables show that collaboration between parents has a significant association with at least one of the outcome variables on all five scales. Only for the prosocial scale, does collaboration appear in all three models.

The models all appear quite sensitive to the selection of cases, and to the control variables used (see section 4.6.5). This limits the conclusions that can be drawn. Neither type of analysis, the logistic regression or the ordinal can be said to be better than the other, as both have their issues, and both are estimating different things. Some general observations can be made when considering both together, though.

The models for association with the emotional symptoms scores contain the fewest significant variables, as well as having fairly low values for Nagelkerke's R square, indicating that the models do not fit the data particularly well (tables A9.1 and A9.2). Collaboration is only significant in the ordinal regression model. Only two factors stand out as showing particularly strong associations, and these are having a stressed mother, and being first born. In the ordinal model, collaboration is the third most significant variable ($p = 0.003$), providing some evidence for the hypothesis that parents who work together are more likely to have children with fewer emotional difficulties.

The models for associations with conduct problems are dominated by characteristics of the parents, with maternal stress being the only factor to appear in all three models (tables A9.3 and A9.4). Collaboration is again only statistically significant in the ordinal model. Had the relationship quality variable been excluded from the analysis, collaboration would have been significant at the 1% level in two of the models, but introduction of this variable reduces the significance level of the collaboration variable, suggesting that much of the impact that collaborative parenting may have on conduct problems is actually due to the parental relationship more broadly.

The models for prediction of hyperactivity are the best specified, in that they have the highest values for Nagelkerke's R square, suggesting that these models are better fits to the data than the other models included in appendix A9 (tables A9.5 and A9.6). Collaboration only makes a significant contribution to the model for borderline or abnormal hyperactivity, suggesting that collaboration may be able to make a difference in the more extreme situations, but not on the whole. Characteristics of the child, such as being male, and having delayed language

development, seem to play a particularly important role in these models, as well as living in income deprivation and parental age, suggesting that it may be more difficult for parents to do anything about hyperactive children than it is, say, for dealing with conduct problems. On the other hand, having parents who paint or draw with the child is significantly associated with less hyperactive behaviour in all three models. Even here, though, one cannot be certain of the direction of any causality, as perhaps the preferred norm would be to paint or draw with the child on most days, but hyperactive behaviour prevents this from happening.

A range of parental characteristics and environmental factors dominate the models for associations with peer problems (tables A9.7 and A9.8). However, only two variables appear in all three models: having delayed language development, and having a mother with few close relationships outside the household are both associated with an increase in peer problems. Collaboration is the only significant parenting variable in two of the three models. In particular, there is a relatively strong association between non-collaboration and borderline or abnormal peer problems. The odds of children of non-collaborative parents being categorised as having borderline or abnormal peer problems are more than double those of the children of non-collaborative parents. This may mean that if children see their parents failing to communicate or work together successfully, they learn particular behaviours which make it harder for them to relate to their peers.

Collaboration is most prominent in the final set of models, for associations with prosocial behaviour (tables A9.9 and A9.10). In all three of the models, collaborative parenting is significant at the 1% level, indicating a tendency for more positive behaviour from children of collaborative parents. Being female was the only other variable to demonstrate significant associations with prosocial behaviour in all three models. The value for Nagelkerke's R square was, however, very low in all three models, suggesting that the models do not fit the data particularly well.

The interviews offered some insight into how prosocial behaviour sometimes develops in children. The Turnbulls, who were one of the internally collaborative

couples introduced in the chapter 5, appeared to have very prosocial children, regularly helping out around the house, without even having to be asked. While there was a desire to pass on particular values and a work ethic to their children, this was often done simply through demonstrating a respect for each other within the household, with both parents involved in all the household tasks. Being *seen* by the children to have a strong relationship and to work together appeared to rub off on the children to want to help around the house themselves. This example will be discussed further in the next section. In households where housework was done mainly by one parent, or where it was done after the children were in bed, there was no evidence for this type of volunteering to help out.

Overall, there is some evidence that collaboration is associated with all types of social, emotional and behavioural development. However, in some cases, such as for emotional problems or conduct problems, it only appears to have much of an association at the extreme of the scales, when problems are most severe. For peer problems, the associations seem to be slightly stronger, but it is in the development of prosocial behaviour where associations with collaboration are most evident.

I shall return to the total difficulties scale now, to look at whether collaboration is of equal importance in different situations, looking first at maternal employment, and then at being at risk due to a situation of multiple disadvantage.

8.5.5 Collaboration, maternal employment and children's behavioural development

In table 8.5, an interaction between maternal employment and collaboration was highlighted. It was suggested that the association between collaboration and child behavioural development was strongest when mothers were working full-time or not at all, while there appeared to be little difference in terms of reported behaviour between children of collaborative and non-collaborative mothers who work part-

time. One can hypothesise at the reasons for this. Perhaps when both parents work 30 or more hours a week, time is at a premium. To use this time effectively, couples need to collaborate. When one parent works full-time and the other does not work, there is a very obvious division of responsibility in terms of childcare. In order for both parents to retain the same focus in terms of their children, collaboration is again important. When collaboration is not in place, decisions end up falling on one parent alone, so any benefits from having a second adult in the household are reduced. There is an additional danger for parents who work full-time that they miss out on local support and information networks, failing to liaise with schools or other parents. Similarly, there is a danger for parents who do not work that they miss out on the adult company that allows them to feel better about themselves, and to have the time away from children that allows them to reflect on their own parenting. Thus, in different ways, full-time workers and non-workers may both miss out on support networks. Part-time workers on the other hand, may be able to draw on support from both the local community and from work colleagues. Collaboration between parents therefore becomes less important. This was highlighted in chapter 5, with the difference between the "partial collaborators" and the "individual actors". While neither group could be considered fully collaborative, the former were more likely to be able to draw upon a network of people to help them improve their situation. The latter were more likely to struggle through on their own.

The interviews offer some insight into what happens when both couples work full-time. At the time of the interviews, three couples were both in full-time employment, the Dewars, the Sutherlands, and the Turnbulls. All three were categorised differently, the Dewars as individual actors, the Sutherlands as external collaborators, and the Turnbulls as internal collaborators. The first two were in this situation largely through choice, each with two parents who wanted to pursue a career, with the financial need for both to work full-time only because they allowed themselves to spend more than most of the other families interviewed. The Turnbulls, however, worked in order to pay off debts from a failed business venture.

The Turnbulls provide a good example of effective "tag team parenting" (Dienhart, 1998). Marian Turnbull was very concerned about leaving her children with anyone else, so she and her husband largely worked different days, with Marian working at weekends. They forced themselves to spend time together, though, and collaboration certainly appeared to pay off in terms of child behaviour. The Turnbulls were the only one of the 20 couples interviewed to award their child a perfect score on the Strengths and Difficulties Questionnaire, of 0 on the total difficulties scale and 10 on the prosocial scale. Because the children see both parents working around the house, and because they have been encouraged by both parents to help from an early age, the Turnbulls have become a very close family unit, with everyone taking their part. Negative behaviour has become a rarity, while positive and prosocial behaviour is very obvious. Marian Turnbull:

Mrs T I don't know if I'm just really lucky, or there's something that Dennis and I do bringing them up. There's very few times the kids ever have to be disciplined. You ask them to do something and they do it. I think there's a lot of mutual respect there, between the kids and us, just the way we all treat each other. We work it very much as we're a unit, and every member of this family has to work, whether it be tidying up, or helping with dinner, helping with homework, that kind of thing. So the kids are generally really, really well behaved. […] Some of my friends laugh at me, but Ross [age 3] helps with the chores when he comes in. He helps take shoes and stuff upstairs. Iona [age 8], she helps do the dishes. She'll help set the dinner table. She'll take coats and stuff upstairs and make the beds. Leah [age 15], you know, it seems to be, the bigger they get, the more chores they get. Leah, she'll clean the bathroom and the kitchen for when we come in from work. But a lot of it I don't even need to ask. You know, I come in and it's done, which is really nice. But I think it's because they see Dennis and I do it all the time. You know, they just chip in, and they help out.

Work is important to the Turnbulls, and they want the work ethic to rub off on their children. They use their need to work as a way of educating the children, so the interaction between work and collaboration has positive effects.

The Sutherlands again have reasonably well behaved children, although Tania Sutherland jokes that she has to discipline them all the time. Prosocial behaviour, however, is not as evident, with no mention of the children ever helping around the

house. Work for the Sutherlands does appear to have much more of an impact than it does for the Turnbulls, as Tania's work can sometimes be stressful, often with a long commute. It also appears to be more for the parents than the family. It is the external collaboration that allows the Sutherlands to both work full-time, with a lot of use made of after school clubs, as well as family, friends and neighbours.

The Dewars also both work full-time, but are much more inconsistent with their parenting. Jacqueline Dewar often found it difficult to see disciplinary matters through, preferring to do things herself than run the risk of getting into an argument with her children. Jacqueline Dewar:

Mrs D Mine come home, and they don't take their shoes off, or they don't wash their hands, which is a minor thing. It's like, "okay, just go and wash them". Or they don't do their lunchboxes. It's just "I'm not going to argue with you, Philippa, I'll do it". And then I'll complain later on, and then Andrew will get upset, and I'm stressed, and I'll say "well, it's only lunchboxes". You know, so it's "What are your sanctions?" "Well, it's only lunchboxes, it's not the end of the world."

On the Strengths and Difficulties Questionnaire, Mrs Dewar identified emotional problems, peer problems and hyperactivity in her son, to give an above average total difficulties score. It cannot be said for certain, however, that the problem behaviour that sometimes occurs in the Dewar household has anything to do with two parents working full-time. Jacqueline does bring stress home with her, but she also manages to get home relatively early. Difficulties between Andrew and Jacqueline occur because of differing parenting styles and a lack of collaboration. Both working full-time, and particularly the tiredness which often affects Jacqueline after work, limit the communication between them. When they do sit down to talk, issues around the children are not satisfactorily worked through, so any problem behaviour is not addressed.

From the limited evidence of these three cases, a united front, or use of networks can allow parents to bring up children well when both work full-time. When such collaboration does not occur, problems may be allowed to persist.

The interviews, however, fail to provide any insight when it comes to mothers who do not work, as in all the collaborative couples, the mother was in paid employment. The mother with the most problematic child, according to responses to the Strengths and Difficulties Questionnaire, Mrs Peterson, was actually forced into quitting work because she could not get childcare that would cover both her children, because of their behavioural issues. Thus, rather than maternal employment affecting child behaviour, child behaviour affected employment.

To better understand the difference between the effects of collaboration when mothers are in different employment situations, it is necessary to split the dataset. Table 8.6 shows four models of child behaviour. The first is a repeat of model 4 in table 8.5, with the interaction term removed, and an additional entry for paternal employment. This variable was added so that the effects of both parents working full-time, and of neither parent working, could be examined. The variable for paternal employment is not statistically significant, although there is a significant difference, at the 5% level, which shows that children of fathers who are not working are more likely to have fewer behavioural difficulties than children of employed fathers. Adding this to the effect of maternal employment suggests quite a negative effect on child development of both parents being in employment, although this is offset by the reduction in risk of being in income deprivation, and other factors which may be associated with employment.

Model 2 in table 8.6 is a repeat of model 1, but includes only cases in which the mother was in full-time employment at sweep 2 of the survey. One can see here that the collaboration variable now plays a very significant part in the model, significant at the 1% level. Only maternal stress demonstrates a similar level of significance. Due to the small sample size, no other variable remains statistically significant, although elements of some variables do exhibit significant differences.

Model 3 in table 8.6 includes only cases in which the mother was in part-time employment at sweep 2 of the survey. In this model, collaboration is not significant, although many of the other variables remain significant. High levels of maternal

stress demonstrate a particularly strong negative association with outcomes in this model. Two parenting variables have significant associations with the dependent variable, suggesting that mothers who work part-time are actively influencing their children's social, emotional and behavioural development, but do not need to work with their partner to achieve positive results. Support networks play a much bigger role in this model than any of the others, with respondents with no or few close relationships being more likely to have children with behavioural difficulties. Thus, there is evidence to suggest that when a mother works part-time, other relationships are able to make up for a lack of collaboration with one's partner.

Model 4 in table 8.6 includes only cases in which the mother was not in employment at sweep 2 of the survey. Here, collaboration again plays an important role in the model, being one of only six significant variables, along with maternal stress, maternal education, the quality of the relationship, living in income deprivation, and the frequency of visits to friends with young children.

A simple cross-tabulation allows the investigation of whether part-time workers do indeed have a greater network of social contacts on whom they could call. Table 8.7 shows that this is the case, compared to mothers who are not working, but the difference between full-time working mothers and part-time working mothers is not so clear.

Table 8.6 Associations between key parenting, demographic and household characteristics, and score on the SDQ total difficulties scale, sweep 4, when the mother works full-time, part-time, or not at all

	Model 1: All families - original model + father's emp.		Model 2: Mother employed full-time		Model 3: Mother employed part-time		Model 4: Mother not in employment	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Collaborative parenting		*.021*		*.003*		*.772*		*.041*
Collaborative	-0.166	*.021*	-0.353	*.003*	-0.029	*.772*	-0.286	*.041*
Base category: non-collaborative								
Relationship quality		*.004*		*.279*		*.103*		*.046*
High quality relationship	-0.201	*.004*	-0.138	*.279*	-0.157	*.103*	-0.261	*.046*
Base category: Lower quality relationship								
Frequency of visits to friends with young children		*.045*		*.636*		*.509*		*.001*
Less than once a fortnight	0.109	*.045*	0.045	*.636*	-0.066	*.509*	0.348	*.001*
Base category: At least once a fortnight								
Parents paint or draw with child		*.001*		*.353*		*.000*		*.173*
No more than a few times a week	0.172	*.001*	0.087	*.353*	0.291	*.000*	0.108	*.173*
Base category: On most days								
Parents sing or recite nursery rhymes with child		*.015*		*.116*		*.003*		*.585*
No more than a few times a week	0.162	*.015*	0.181	*.116*	0.258	*.003*	0.058	*.585*
Base category: On most days								
Study child's birth order		*.002*		*.075*		*.000*		*.526*
Third or later	-0.231	*.002*	-0.365	*.023*	-0.413	*.000*	-0.061	*.672*
Second	-0.196	*.002*	-0.033	*.738*	-0.321	*.000*	-0.136	*.267*
Base category: First								
Delays in language development		*.002*		*.135*		*.015*		*.438*
Yes	0.167	*.002*	0.168	*.135*	0.201	*.015*	0.065	*.438*
Base category: No								
Child's general health		*.011*		*.053*		*.016*		*.882*
At least one sweep in fair or poor health	0.203	*.011*	0.261	*.053*	0.267	*.016*	0.021	*.882*
Base category: Always good or very good								
At least one parent not in good health		*.002*		*.202*		*.048*		*.115*
Yes	0.170	*.002*	0.140	*.202*	0.178	*.048*	0.138	*.115*
Base category: No								
Maternal stress		*.000*		*.000*		*.000*		*.000*
High (4+)	0.512	*.000*	0.378	*.000*	0.688	*.000*	0.510	*.000*
Moderate (3)	0.201	*.003*	0.305	*.003*	0.170	*.054*	0.167	*.177*
Base category: Low (0-2)								

	Model 1: All families - original model + father's emp.		Model 2: Mother employed full-time		Model 3: Mother employed part-time		Model 4: Mother not in employment	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Mother's age at birth of study child		*.000*		*.168*		*.013*		*.161*
Under 25	0.321	*.000*	0.339	*.043*	0.384	*.015*	0.273	*.049*
25 to 29	0.161	*.031*	0.156	*.320*	0.153	*.109*	0.070	*.548*
35 and above	-0.055	*.462*	-0.011	*.918*	-0.091	*.289*	-0.133	*.284*
Base category: 30 to 34								
Difference in parents' ages		*.007*		*.276*		*.011*		*.176*
Mother older by at least 5 years	0.318	*.018*	0.212	*.117*	0.298	*.082*	0.459	*.077*
Father older by at least 5 years	-0.093	*.109*	-0.065	*.563*	-0.201	*.029*	-0.022	*.828*
Base category: Similar ages								
Highest level of qualification of mother		*.001*		*.156*		*.001*		*.022*
No qualification	0.282	*.056*	0.603	*.024*	0.323	*.040*	0.318	*.153*
GCSEs / Standard Grades / NVQ level 2 or below	0.303	*.000*	0.235	*.096*	0.243	*.021*	0.429	*.001*
A levels / Highers / NVQ level 3 or equiv	0.161	*.008*	-0.011	*.903*	0.309	*.001*	0.158	*.248*
HNC, HND, NVQ level 4 or equiv	0.217	*.008*	-0.065	*.615*	0.333	*.002*	0.352	*.010*
Base category: Degree / NVQ level 5 or equiv								
Support network		*.015*		*.127*		*.003*		*.510*
None or few close relationships	0.222	*.004*	0.148	*.186*	0.409	*.001*	0.070	*.546*
Some close relationshiops	0.049	*.332*	-0.044	*.641*	0.115	*.114*	-0.033	*.745*
Base category: Many close relationships								
Mother employed		*.013*						
Not working	-0.171	*.018*						
Part-time	-0.019	*.739*						
Base category: Full-time								
Father employed		*.074*		*.307*		*.401*		*.171*
Not working	-0.232	*.048*	-0.271	*.136*	-0.031	*.906*	-0.262	*.097*
Part-time	0.089	*.486*	-0.081	*.680*	0.236	*.182*	0.113	*.666*
Base category: Full-time								
Income deprivation		*.010*		*.645*		*.660*		*.042*
Repeated	0.290	*.015*	-0.147	*.697*	0.024	*.887*	0.345	*.017*
Temporary	0.255	*.015*	0.170	*.400*	0.200	*.361*	0.247	*.070*
Base category: No								
Intercept	2.068	*.000*	2.273	*.000*	1.926	*.000*	1.985	*.000*
Sample size	*1,107*		*277*		*494*		*336*	
R square	.262		.282		.307		.300	

Growing Up in Scotland, child cohort, weighted
Dependent variable: square root of SDQ total difficulties score, sweep 4

The evidence seems to suggest collaboration being important for different reasons when the mother is working full-time and when she is not working at all. In the former group, support networks are more likely to be available. Pressure on time makes it easier for parents to miss each other, so parents need to coordinate themselves as well as their support in order to achieve better outcomes for their children. When the mother is not working, support networks are likely to be smaller, so it is again important that the mother and father work closely together. However, when the mother is working part-time, support networks are more likely to be large, and time pressure is likely to be less. Thus, a mother can organise herself and her support network, with less of a need to collaborate with her partner.

Table 8.7 Maternal employment by number of close relationships, sweep 2

	Maternal employment status			
	Not working	Part time	Full time	All
Number of close relationships mother has				
None or few	33.5%	19.6%	23.7%	25.2%
Some	38.9%	49.2%	47.7%	45.3%
Many	27.6%	31.3%	28.7%	29.4%
All	100.0%	100.0%	100.0%	100.0%
Sample size	*394*	*567*	*302*	*1,263*

Chi square p = 0.000
Growing Up in Scotland, child cohort, weighted

A similar picture is drawn when one attempts to optimise the three models, by including only variables which demonstrate a significant association with the SDQ total difficulties score. These models are shown in table 8.10. The table quite clearly shows a very different set of variables being used to predict the SDQ total difficulties score in each of the three situations. Only levels of maternal education and maternal stress show significant associations with the dependent variable in all three models. Collaborative parenting is one of only two other variables to appear in more than one of the models.

When the mother is in full-time employment, collaboration demonstrates an even stronger association with the dependent variable than before, with a greater degree of statistical significance than any other variable in the model. When the mother is in part-time employment, collaboration shows no association with the dependent variable. When the mother is not in employment, collaboration demonstrates an association with improved child behaviour, which is significant at the 5% level[21].

The impact of parenting practices on the model when the mother works part-time is of particular note. The inclusion of singing or reciting rhymes with the child, painting or drawing with him, and limiting a child's television viewing, all suggest that parenting is important, but that the mother does not need to collaborate with her partner in order to achieve positive results.

A lack of employment, depending on the reasons, may be considered one of the risk factors associated with social exclusion, and this is what I shall look at next.

8.5.6 Multiple disadvantage and behavioural development

The linear regression models as presented in sections 8.5.3 and 8.5.4, by their very nature, cannot be used to test the hypothesis that the association between collaboration and child behavioural development is strongest when the family is at risk due to multiple disadvantage. Introducing a variable for whether a family is at risk will not demonstrate whether the effect of collaboration is greater when the family is at risk, as there is an assumption built into the model that the variables are all independent of each other, and hence the coefficients are all constant. Instead, it is necessary to look at families at risk in the same way in which maternal employment was examined.

[21] An alternative model could have been constructed which included relationship quality, but not collaboration, plus the same control variables. This would have had exactly the same value for R square, hence both models appear to be equally good.

Table 8.8 Associations between key parenting, demographic and household characteristics, and score on the SDQ total difficulties scale, sweep 4, when the mother works full-time, part-time or not at all (2)

	Model 1: Mother employed full-time		Model 2: Mother employed part-time		Model 3: Mother not in employment	
	B	Sig.	B	Sig.	B	Sig.
Collaborative parenting		*.000*				*.039*
Collaborative	-0.413	*.000*			-0.259	*.039*
Base category: non-collaborative						
Frequency of visits to friends with young children						*.000*
Less than once a fortnight					0.318	*.000*
Base category: At least once a fortnight						
Parents paint or draw with child				*.001*		
No more than a few times a week			0.248	*.001*		
Base category: On most days						
Parents sing or recite nursery rhymes with child				*.002*		
No more than a few times a week			0.266	*.002*		
Base category: On most days						
Parents play at recognising words and shapes, etc.		*.015*				
Less than once a week	0.292	*.015*				
Base category: At least once a week						
Parents allow child to watch TV				*.034*		
For 3 or more hours a day			0.228	*.034*		
Base category: for less than 3 hours a day						
Uses group childcare, e.g. nursery or creche				*.020*		
Yes			0.170	*.020*		
Base category: No						
Sex of study child		*.043*				
Male	0.191	*.043*				
Base category: Female						
Number of children in household		*.001*				
Four or more	0.909	*.036*				
Three	-0.553	*.001*				
Two	-0.120	*.092*				
Base category: One						
Study child's birth order				*.000*		*.012*
Third or later			-0.374	*.000*	-0.302	*.009*
Second			-0.332	*.000*	-0.262	*.010*
Base category: First						
Delays in language development				*.036*		
Yes			0.169	*.036*		
Base category: No						
Child's general health				*.005*		
At least one sweep in fair or poor health			0.320	*.005*		
Base category: Always good or very good						
Maternal stress		*.000*		*.000*		*.000*
High (4+)	0.397	*.000*	0.785	*.000*	0.592	*.000*
Moderate (3)	0.316	*.004*	0.255	*.003*	0.244	*.029*
Base category: Low (0-2)						
Paternal depression				*.006*		
High (3+)			0.307	*.005*		
Moderate (1,2)			-0.076	*.333*		
Base category: Low (0)						

…cont

…cont

	Model 1: Mother employed full-time		Model 2: Mother employed part-time		Model 3: Mother not in employment	
	B	Sig.	B	Sig.	B	Sig.
Mother's age at birth of study child				*.000*		
Under 25			0.445	*.005*		
25 to 29			0.114	*.232*		
35 and above			-0.160	*.059*		
Base category: 30 to 34						
Father's age at birth of study child		*.001*				
Under 25	0.352	*.073*				
25 to 29	-0.164	*.202*				
35 and above	-0.358	*.001*				
Base category: 30 to 34						
Difference in parents' ages				*.004*		
Mother older by at least 5 years			0.362	*.033*		
Father older by at least 5 years			-0.162	*.048*		
Base category: Similar ages						
Highest level of qualification of mother		*.010*		*.000*		*.000*
No qualification	0.280	*.203*	0.322	*.029*	0.675	*.000*
GCSEs / Standard Grades / NVQ level 2 or below	0.227	*.054*	0.321	*.002*	0.624	*.000*
A levels / Highers / NVQ level 3 or equiv	0.043	*.687*	0.351	*.000*	0.361	*.004*
HNC, HND, NVQ level 4 or equiv	-0.126	*.314*	0.376	*.003*	0.409	*.005*
Base category: Degree / NVQ level 5 or equiv						
Respondent's ethnicity				*.003*		
Non-white			-0.668	*.003*		
Base category: White						
Support network				*.007*		
None or few close relationships			0.374	*.002*		
Some close relationshiops			0.127	*.080*		
Base category: Many close relationships						
Material deprivation (household)						*.000*
Unable to afford three or more items					0.424	*.000*
Unable to afford one or two items					-0.152	*.092*
Base category: Able to afford all items for children						
Material deprivation (children)		*.007*				
Unable to afford two or more items	-0.289	*.354*				
Unable to afford one item	0.376	*.003*				
Base category: Able to afford all items for children						
Scottish Index of Multiple Deprivation						*.031*
Live in one of 20% most deprived areas					-0.246	*.031*
Base category: Do not live in most deprived areas						
Satisfaction with area						*.005*
Respondent not satisfied with area in which they live					0.307	*.005*
Base category: respondent satisfied with area						
Intercept	2.553	*.000*	1.774	*.000*	2.127	*.000*
Sample size	*293*		*521*		*378*	
R square	.285		.307		.280	

Growing Up in Scotland, child cohort, weighted
Collaborative parenting not significant in third model when first 100 cases dropped (p = 0.082)
Dependent variable: square root of SDQ total difficulties score, sweep 4

Table 8.9 shows the mean values for the square root of the scores on the Strengths and Difficulties Questionnaire total difficulties scale for collaborative and non-collaborative parents, at risk and not at risk due to multiple disadvantage, according to both definitions provided in section 8.3.4. In both cases, collaboration is more likely to occur when the child is not in a position of multiple disadvantage. Using the problem behaviour definition, the mean difference in scores between children of collaborative and non-collaborative parents when children are at risk is not statistically significant, even though it is similar to the mean difference when children are not at risk. Thus, on this definition, there is no evidence that the association between collaboration and child behavioural development is strongest when the family are exposed to multiple risk factors.

Using the social exclusion definition of risk, one can see a much larger apparent association between collaboration and child outcomes for those at risk. The average square root of the score for children of non-collaborative parents at risk is 3.08, compared to 2.49 for those of collaborative parents. This equates to being around the 77^{th} and the 53^{rd} percentile respectively (comparing the squares of these values to the distribution in table 8.1). The average square root score for children of non-collaborative parents not at risk is 2.49, the 53^{rd} percentile, and 2.21, the 41^{st} percentile, for those of collaborative parents. One could say that it is easier to make improvements at the higher end of the scale, but use of the square root of the score has been made to counter such an argument. On this definition, there is some evidence that the association between collaboration and child behaviour is stronger when there are multiple risk factors, but the overlapping confidence intervals for the size of the mean difference suggest that one would have to take a larger sample to demonstrate this with any degree of certainty.

Using this second definition, controls can be introduced by re-running the regression model shown in table 8.5 for those at risk and those not at risk due to multiple disadvantage. The analysis can also be run for the whole group, while introducing interaction effects between collaboration, maternal employment and the “at risk” variable. The results are shown in table 8.10.

Table 8.9 Mean square root of SDQ total difficulties scores for children of collaborative and non-collaborative parents, "at risk" and "not at risk", sweep 4

SDQ: Total difficulties score	Collaborative Parenting Yes	No	All	Mean Difference	95% Confidence Interval of the Difference Lower	Upper	t-test for Equality of Means significance
	Mean Score						
At risk of problem behaviour	2.98	3.23	3.19	0.25	-0.04	0.53	0.091
Sample size	*31*	*194*	*225*				
Not at risk of problem behaviour	2.12	2.40	2.32	0.28	0.15	0.41	0.000
Sample size	*243*	*640*	*883*				
At risk of social exclusion	2.49	3.08	3.01	0.58	0.16	1.01	0.008
Sample size	*18*	*132*	*150*				
Not at risk of social exclusion	2.21	2.49	2.42	0.27	0.15	0.40	0.000
Sample size	*290*	*894*	*1,184*				

Growing Up in Scotland, child cohort, sweep 4, weighted
Equal variances not assumed

Table 8.10 Associations between key parenting and household characteristics, and SDQ score, for children "at risk" and not "at risk"

	Model 1: All families - original model		Model 2: All families - includes "at risk" variable		Model 3: "at risk" families only		Model 4: "not at risk" families only	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Collaborative parenting		*.003*		*.009*		*.124*		*.019*
Collaborative	-0.340	*.001*	-0.350	*.001*	-0.009	*.978*	-0.344	*.001*
Base category: non-collaborative								
Relationship quality		*.005*		*.005*		*.261*		*.006*
High quality relationship	-0.198	*.005*	-0.195	*.005*	-0.202	*.261*	-0.187	*.006*
Base category: Lower quality relationship								
Frequency of visits to friends with young children		*.048*		*.051*		*.797*		*.021*
Less than once a fortnight	0.110	*.048*	0.111	*.051*	-0.056	*.797*	0.130	*.021*
Base category: At least once a fortnight								
Parents paint or draw with child		*.001*		*.001*		*.659*		*.000*
No more than a few times a week	0.166	*.001*	0.159	*.001*	-0.050	*.659*	0.186	*.000*
Base category: On most days								
Parents sing or recite nursery rhymes with child		*.008*		*.006*		*.165*		*.019*
No more than a few times a week	0.171	*.008*	0.182	*.006*	0.192	*.165*	0.175	*.019*
Base category: On most days								
Study child's birth order		*.001*		*.000*		*.197*		*.001*
Third or later	-0.246	*.001*	-0.270	*.000*	-0.378	*.071*	-0.216	*.006*
Second	-0.202	*.002*	-0.210	*.001*	-0.243	*.203*	-0.217	*.001*
Base category: First								
Delays in language development		*.004*		*.003*		*.058*		*.018*
Yes	0.158	*.004*	0.157	*.003*	0.229	*.058*	0.144	*.018*
Base category: No								
Child's general health		*.019*		*.013*		*.626*		*.002*
At least one sweep in fair or poor health	0.190	*.019*	0.208	*.013*	-0.067	*.626*	0.309	*.002*
Base category: Always good or very good								
At least one parent not in good health		*.007*		*.017*		*.005*		*.098*
Yes	0.151	*.007*	0.135	*.017*	0.304	*.005*	0.096	*.098*
Base category: No								
Maternal stress		*.000*		*.000*		*.132*		*.000*
High (4+)	0.499	*.000*	0.482	*.000*	0.210	*.206*	0.577	*.000*
Moderate (3)	0.200	*.003*	0.197	*.003*	0.349	*.049*	0.174	*.019*
Base category: Low (0-2)								
Mother's age at birth of study child		*.000*		*.001*		*.301*		*.002*
Under 25	0.325	*.000*	0.290	*.000*	0.260	*.221*	0.267	*.004*
25 to 29	0.164	*.030*	0.169	*.024*	0.203	*.347*	0.155	*.047*
35 and above	-0.058	*.437*	-0.055	*.464*	-0.156	*.447*	-0.076	*.321*
Base category: 30 to 34								
Difference in parents' ages		*.007*		*.007*		*.153*		*.021*
Mother older by at least 5 years	0.326	*.016*	*0.324*	*.018*	*0.572*	*.176*	*0.348*	*.025*
Father older by at least 5 years	-0.091	*.119*	*-0.087*	*.136*	*-0.093*	*.440*	*-0.070*	*.277*
Base category: Similar ages								

	Model 1: All families - original model		Model 2: All families - includes "at risk" variable		Model 3: "at risk" families only		Model 4: "not at risk" families only	
	B	Sig.	B	Sig.	B	Sig.	B	Sig.
Highest level of qualification of mother		*.001*		*.002*		*.410*		*.003*
No qualification	0.296	*.040*	0.251	*.097*	0.539	*.070*	0.154	*.358*
GCSEs / Standard Grades / NVQ level 2 or below	0.302	*.000*	0.293	*.000*	0.473	*.058*	0.300	*.000*
A levels / Highers / NVQ level 3 or equiv	0.169	*.006*	0.167	*.007*	0.722	*.076*	0.158	*.011*
HNC, HND, NVQ level 4 or equiv	0.223	*.006*	0.232	*.004*	0.326	*.251*	0.234	*.006*
Base category: Degree / NVQ level 5 or equiv								
Support network		*.020*		*.022*		*.338*		*.014*
None or few close relationships	0.213	*.005*	0.210	*.006*	0.048	*.787*	0.238	*.004*
Some close relationshiops	0.054	*.300*	0.053	*.305*	-0.146	*.340*	0.081	*.118*
Base category: Many close relationships								
Mother employed		*.008*		*.000*		*.001*		*.024*
Not working	-0.182	*.028*	-0.246	*.006*	0.448	*.056*	-0.236	*.011*
Part-time	-0.090	*.177*	-0.121	*.090*	0.573	*.041*	-0.107	*.134*
Base category: Full-time								
Income deprivation		*.028*		*.179*		*.816*		*.139*
Repeated	0.212	*.044*	0.099	*.353*	-0.017	*.923*	0.031	*.803*
Temporary	0.239	*.026*	0.209	*.066*	0.065	*.761*	0.295	*.046*
Base category: No								
At risk of social exclusion				*.499*				
At risk of social exclusion			-0.498	*.095*				
Base category: Not at risk								
Interaction: collaboration*maternal employment		*.033*				*.031*		*.074*
Collaborative and not working	0.052	*.760*			-0.909	*.024*	0.165	*.356*
Collaborative and part-time	0.313	*.016*			0.024	*.953*	0.313	*.023*
Base category: Non-collaborative or full-time								
Interaction: collaboration*maternal emp*risk				*.000*				
Collaborative and not working and at risk			0.365	*.468*				
Collaborative and part-time and at risk			1.014	*.017*				
Collaborative and full-time and at risk			0.168	*.581*				
Collaborative and not working and not at risk			0.162	*.363*				
Collaborative and part-time and not at risk			0.320	*.018*				
Non-collaborative and not working and at risk			0.779	*.006*				
Non-collaborative and part-time and at risk			0.755	*.019*				
Base: Other								
Intercept	2.112	*.000*	2.152	*.000*	1.963	*.000*	2.103	*.000*
Sample size	*1,107*		*1,105*		*131*		*974*	
R square	.263		.272		.320		.228	

Interaction not significant in third model when first 100 cases dropped (p = 0.227)
Collaborative parenting not significant in fourth model when first 100 cases dropped (p = 0.124), but interaction is (p = 0.031)
Growing Up in Scotland, child cohort, weighted
Dependent variable: square root of SDQ total difficulties score, sweep 4

Model 1 is the same as model 4 in table 8.5, reproduced here for easy comparison. Model 2 in table 8.10 includes a 3 way interaction, between maternal employment, collaboration, and being at risk. The "at risk" variable is itself not significant, but the interaction has become much more significant than it is in model 1.

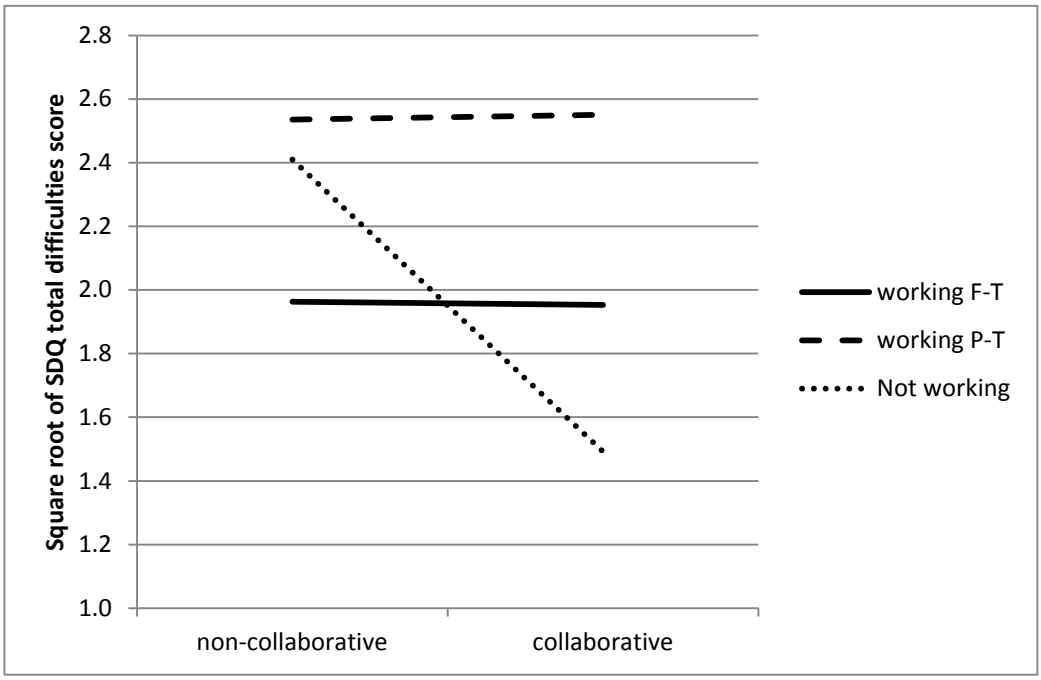
When the child is at risk, there is a particularly noticeable difference in the magnitude of the coefficients for collaborative and non-collaborative households, when the mother is not in employment. The difference in the coefficients of 0.76 is much greater than for any other factor in the model, meaning that collaboration appears to be particularly important when the household is exposed to multiple risk factors, and the mother is not working. When the mother is not in work, and the household not at risk, the difference is reduced to 0.19, suggesting that collaboration is of lesser importance in this situation.

When the mother is in full-time employment, the strength of the association appears to be much reduced, and the other way around, with associations between collaboration and child outcomes being more noticeable when the household is not at risk. In this situation, the magnitude of the difference in scores is 0.35, compared to a non-significant difference of 0.18 when the household is at risk. Differences when the mother works part-time are smaller and non-significant.

These differences are even clearer when the data is split, to look at those at risk and those not at risk separately. Model 3 shows the results for those at risk due to multiple disadvantage only. Given the small sample size, many of the variables have become less significant than they were before the sample was split. However, for those at risk, the interaction between collaboration and maternal employment is one of only three variables that are significant at the 5% level, the others being whether either parent is not in good health, and the mother's employment status. The difference in scores when the mother is not working between collaborative and non-collaborative households is now even larger, at around 0.92, whereas differences when the mother is in full-time or part-time employment are tiny and not significant.

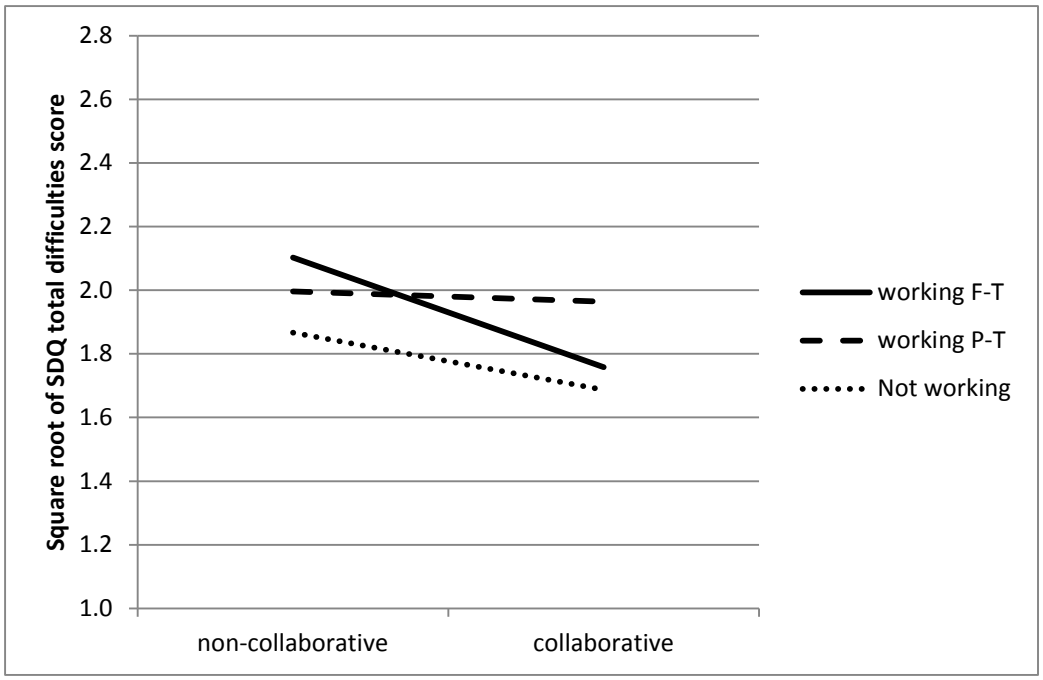
Figure 8.3 show that when the analysis is restricted to the subset of households considered to be at risk, then if the mother is in work, either part-time or full-time, there is no association between collaboration and score on the SDQ total difficulties scale, whereas, when she is not working, the score for children of collaborative parents is much lower than for children of non-collaborative parents (holding all other factors in the base categories, for simplicity). This implies fewer difficulties for such children.

Figure 8.3 For the linear regression for child's SDQ score, for the subset of households considered to be "at risk", graph showing the interaction between the factors collaboration and maternal employment



Model 4 shows the results when the household is not at risk. The larger sample size means that most of the variables that were significant in the original model are significant again. The interaction term, however, does not show a statistically significant association with the outcome variable, although some differences within the interaction are significant. The collaboration variable has once again become statistically significant. The differences in coefficients are very similar to those described for model 2 when the household was not at risk.

Figure 8.4 For the linear regression for child's SDQ score, for the subset of households *not* considered to be "at risk", graph showing the interaction between the factors collaboration and maternal employment



Again, the interaction can be plotted on a chart. Figure 8.4 shows there is no association between collaboration and score on the SDQ total difficulties scale when the household is not at risk, and the mother is working part-time. When she is working full-time, or not at all, scores are lower when the parents act collaboratively (holding all other factors constant), although the difference in scores is not as dramatic as it was when the family was at risk.

Altogether, there is some evidence that the association between collaboration and child behaviour is stronger when the household is exposed to multiple risk factors. However, this appears to be only when the mother is not in employment. When the mother is in either full-time or part-time employment, there is no evidence of a stronger association when the household is at risk.

8.6 Conclusion

The story in this chapter has been generally positive in terms of the association between collaboration and a child's social, emotional and behavioural development, but not in all circumstances. The evidence presented provides a clear indication that children of collaborative parents do indeed have fewer social, emotional or behavioural problems than children of non-collaborative parents, but the strength of this association varies according to the situation.

Two particular situations were highlighted as of interest, with the association between collaboration and child behavioural development being strongest when the household was exposed to multiple risk factors, and the mother was out of work. The association was also strong when the mother worked full-time, irrespective of whether the household was at risk.

Families at risk due to multiple disadvantage are already a major focus of government policy, and a lack of employment is just one of many risk factors. What has been shown here is that when parents act collaboratively in such a situation, some of the problem behaviours may be reduced. The definitions of risk I have used, though, are necessarily much less focused than government definitions, so further research would be required to confirm the findings.

Full-time employment provides a very different form of risk. When both parents are employed full-time, there may be a greater reliance on childcare providers, or there may be a reliance on "tag-team" parenting, when parents actually see very little of each other (Dienhart, 1998). Either way, collaboration between the parents is associated with fewer behavioural difficulties and more prosocial behaviour in children. When collaboration does not occur, one parent, most likely the mother, may well end up taking on a "second shift" in childcare (Hochschild and Machung, 1989), so not only are outcomes for the child worse, but there is also an inequality in workload between the parents.

Consideration of the five subscales of the Strengths and Difficulties Questionnaire showed collaboration to be most prominent in the models for prosocial behaviour. In the four difficulties subscales, it was prominent in the ordinal models, and in the models for borderline or abnormal difficulties, but not in any of the models for above average difficulties. This suggests that collaboration makes more of a difference when problems are more evident than when they are minor, particularly in terms of hyperactive behaviour or peer problems. It also makes a difference across the board in the promotion of positive behaviour.

It must be remembered that the type of analysis conducted throughout this chapter can be sensitive to the responses of a small number of cases, and so the exact interpretation of particular control variables has been deliberately glossed over. For example, in table 8.8, the respondent being of non-white ethnicity, was shown to be significantly associated with improved child behaviour when the mother worked part-time. Tables A9.7, A9.8 and A9.9 showed the respondent being of non-white ethnicity to be significantly associated with increased peer problems, and decreased prosocial behaviour. In interpreting these apparently contradictory findings, it must be noted that only 3% of the sample were of non-white origin, and this group in itself may be quite diverse. The Strengths and Difficulties Questionnaire is open to interpretation from the respondents, and certain individuals, or members of certain groups, may compare their children to different standards, leading to differences being highlighted that would not be so if a more objective measure of child behaviour were used.

Caution must also be applied when considering collaboration and the related constructs of relationship quality and paternal involvement. Firstly, the operationalisation of collaboration uses variables included in the operationalisations for the other two constructs, so there is naturally some correlation, though not enough to lead to problems of multicollinearity in the models. Relationship quality and paternal involvement also both utilise established scales, which could be considered more valid than the operationalisation of collaboration, although the collaboration variable still has a degree of face validity. While collaboration showed

stronger associations with child behaviour than paternal involvement did, the associations between relationship quality and child behaviour were stronger still. Hence, when the variable for relationship quality appears in the models, the strength of the association between collaboration and child outcomes is reduced, sometimes to the point of no longer being significant.

The parental relationship, and paternal involvement, as discussed in the earlier chapters, are both aspects of collaboration. Collaboration cannot take place if one partner is not involved. It is also unlikely to occur if there are significant problems in the way parents act or communicate with each other. I would suggest that even in the circumstances in which it has been shown that one of these other constructs have a more significant impact on child outcomes than collaboration does, it makes sense to target not just the parental relationship, or paternal involvement, in any intervention, but to look also at the way in which the two adults work together as parents.

In this chapter I have responded to the research questions set out, and shown that there is an association between collaboration and child behavioural development, but only in certain circumstances. That association is also stronger when the family is exposed to multiple risk factors, but again, only in certain circumstances. In chapters 5 and 6, employment was shown to be a major factor in the way in which couples work together, and again in this chapter, it was the key factor in determining the effectiveness of collaboration in terms of the strength of its association with a child's social, emotional and behavioural development. The association between collaboration and child behavioural development was shown to be particularly strong when the mother worked full-time, or when the mother did not work and the family were at risk due to multiple disadvantage.

The other story that has been running throughout this thesis is one of the problems that occur when there is no support either from within or without the household. I have made no comment in this respect in this chapter, but by looking at the control variables in the analyses, having no close relationships could be considered to add to the negative impact of non-collaboration on a child's development. It should be

noted, though, that collaboration and support are just two of several variables that are associated with development, and I do not wish to over-emphasise the benefits of either. Collaboration, though, like other aspects of parenting, can be addressed, as a way of overcoming some of the negative impact of factors such as low education and income deprivation.

Chapter 9 – Conclusion

"Coming together is a beginning. Keeping together is progress. Working together is success."

Henry Ford

This thesis has demonstrated some of the differences between those couples who simply are together, and those who work together for the benefit of their children. Mothers who are in full-time employment, or who do not work at all, appear to have children with fewer behavioural problems if they collaborate with their partner. Conflict between work and family appears to be less for collaborative parents, who seem better able to deal with a shortage of time than non-collaborative ones. Collaborative parents are more likely to adhere to expert advice on parenting matters, although this is largely due to other factors, such as education, social class, age, and the health of the child, which are associated with the likelihood of collaboration occurring. Particular problems were highlighted when parents not only fail to collaborate with each other, but also lack support from outwith the household.

Methodologically, this thesis has been quite a challenge. A lot of emphasis was placed on the construction of the key collaboration variable used throughout the quantitative analysis. The usual methods of combining indicators did not appear satisfactory for use with the available data, and so a more complex method was chosen to construct a binary variable. This operationalisation was compared against

an operationalisation of collaboration using interview data. Findings from these interviews have been integrated throughout the study.

At the beginning of this project, the aims were outlined as looking at the process of collaboration between co-resident parents, considering whether there are associations between collaboration and other factors which may provide benefits to children and their parents, and examining the circumstances which may affect such associations, as well as developing a methodology, including the secondary analysis of government survey data, which could address these aims. With such aims in mind, six research questions were introduced following a review of the relevant theory and literature. These were:

RQ1: *How does informal social support from outside the immediate family affect the process of collaboration between two parents?*

RQ2: *Is collaboration between parents associated with increases in time available for leisure and for family activities?*
RQ2a: *Is collaboration between parents associated with a decrease in the perceived impact of work on family life and vice-versa?*

RQ3: *Do collaborative parents adhere to "expert" advice on parenting matters more than non-collaborative parents?*

RQ4: *Is collaboration between parents associated with more favourable reports of a child's social, emotional and behavioural development?*
RQ4a: *Is such association stronger when the family is exposed to multiple risk factors?*

The definition of collaboration used in these questions was provided in chapter 3:

> *Collaboration is the process by which co-resident parents work together for the benefit of their children. Such process requires parents to form a common*

understanding of their children and their children's needs and common aims for the development of the children, to take joint responsibility for, and to both be involved with, the children and their activities, and to support each other in their parenting.

The findings from this thesis have already been discussed in relation to each of the research questions, but in this chapter, I will summarise the most important findings, and consider the extent to which they are relevant to parents, practitioners and policy makers.

Collaborative Parenting

What distinguishes collaborative parents from less collaborative ones? Other studies have shown the benefits to children of having older, married, well educated, middle class parents (e.g. Brown, 2004; Levine, Pollack and Comfort, 2001; Liu and Heiland, 2012; Mistry et al., 2008; Moffitt et al., 2002). To some extent these are also the characteristics of collaborative couples. However, in chapter 6, it was shown that such factors actually explain very little of the propensity of a couple to collaborate. The collaborative couples in the Growing Up in Scotland study are actually a very diverse group, of differing ages and differing levels of education. It is their actions, far more than their backgrounds, which distinguish them from others. Hence, it could be inferred that any couple have the opportunity to collaborate.

Rather than suggesting that this means parents in all circumstances should be actively encouraged to collaborate, caution should be applied to the findings. Firstly, effect sizes for associations with child behaviour are small. Many factors influence child development, and parental collaboration is certainly not the most important. Levels of maternal stress, maternal age, maternal education, the child's position within the family, the relationship between the parents, and living in income deprivation all appear to have stronger associations with behavioural outcomes than does parental collaboration. Associations with other child outcomes have not been assessed. Where collaboration differs from many of these variables, though, is in the

way in which it might be addressed. While a child's position within the family is fixed, and improving levels of parental education in order to improve child wellbeing is something that would most likely be done on a population level, collaboration is something that could be addressed on an individual basis, through counselling or education. Like parenting education more generally, this might seem more appealing to some than being invited to participate in a course to address stress or relationship issues.

Secondly, any associations between collaboration and child behavioural development do not appear to be equal in all circumstances. In the common household set up of one and a half workers, no association at all was demonstrated, whereas it was relatively strong when the mother either worked full-time, or was not employed.

Thirdly, there is no evidence that collaboration, as it has been described throughout this thesis, is a concept that transcends cultures. The data used were only representative of the Scottish population, but even within that population, there was a very strong association between being of non-white origin and being described as non-collaborative. This suggests that the operationalisation of the concept of collaboration is not appropriate to capture the way in which ethnic minority couples work together. Despite these reservations, the main driver behind this thesis is that there is an advantage to collaborating with one's partner.

Examples of what collaboration means to real couples were provided in chapter 5. Parenting, for certain couples, was very much a two person job. Collaborating meant supporting each other. It meant wanting the same things for one's children. It meant compromise, negotiation, mutual respect, understanding each other, and understanding the children in the same way. It meant communication. It meant work. Andrea Jackson and Rab Henderson:

Mrs J I view us very much as a team, you know, Martin and I. There are certain things he puts on the table and we discuss, and there are things I put on the table and we discuss. And we sort of flip ... although I sort of see us as being

equal share-holders in this house, there are times when he's in the lead and there are times when I'm in the lead. And it flips backwards and forwards.

Mr H There are certain things, I've got my view on things, she'll have her own view on things and it's about agreeing jointly about what's the best foot to put forward. There's no point in saying that… I sit silent, she tells me everything and I just sit nodding my head and say well that's great, let's do that. It's not the case. That's not a working relationship. I think we're good in the sense that… I'm just trying to get the right word … it is a sort of a mature, logical approach to it.

The mainly American literature on coparenting discussed in chapter 2 is quite clear about the difference between collaboration over one's children and the relationship between two parents. The above quotes show that in reality, it is very hard to demarcate the two. Both Mrs Jackson and Mr Henderson could be talking about any aspect of their relationship, not just that which relates to parenting. This explains the problems incurred in chapter 8 when including measures of both collaborative parenting and relationship quality.

When relationship quality was not used as a control variable, there was a highly significant association between collaborative parenting and maternal reports of fewer social, emotional and behavioural problems in her child. When relationship quality was introduced, the association remained statistically significant, but the level of significance was much reduced. The implication of this is that the quality of the relationship plays a large part in collaborative parenting, and so it is questionable whether it is sensible to view them separately. There is, however, an effect of collaboration beyond that of the adult relationship. This is particularly noticeable when considering specific aspects of child behaviour, such as the demonstration of emotional symptoms, problems with peers, and the demonstration of prosocial behaviour, as well as child behaviour more generally, in households where the mother works full-time.

Lack of support from within and without

The analysis throughout this thesis has necessitated a very definite distinction between those who act collaboratively, and those who do not. The reality, though, is that there are many different ways to collaborate, a lot of couples who show elements of both collaboration and non-collaboration, and plenty of couples who may collaborate one day, but not the next. In the same way, support is not black and white. Different couples may be able to access different types of support, as well as having networks of varying sizes.

One story that has been repeated several times, is that parents who struggle to collaborate with their partner, and who lack support from outside the home, are the ones who are most likely to have problems parenting. They are the ones who find that work impacts on their family the most. They are the ones who are least likely to have time away from their children to do something for their own interest. They are the least likely to enjoy meals together as a family. They are the least likely to have attended ante-natal classes. They are the most likely to find it difficult to access advice.

The question arises as to how best to provide for such families, who appear to be both most in need of support, and also least able to access it. Government rhetoric in Scotland, as in the rest of the UK, is that every child matters. It is therefore important that such families should be able to access the support and advice they need. The argument presented supports the type of universal approach advocated in the Positive Parenting Programme, in which all families are targeted for parenting advice through the media, and those most in need are provided with more intensive support (Sanders, 1999; Sanders, Cann and Markie-Dadds, 2003).

The Positive Parenting Programme also recognises the benefits of working together as parents. While focussing on the parent-child relationship, it recognises that more can be achieved if co-resident parents support each other, give each other time for

their own needs, address problems in their own relationship, and negotiate with each other to achieve a satisfactory work-life balance[22].

Where informal support from outside the household is readily available, it could fulfil many of the functions of support from one's partner. In chapters 5 and 6, it was shown that a common use of support was to provide time for parents for their own needs. Some of the parents interviewed mentioned other forms of support, financial, emotional, the sharing of information, and the testing out of ideas, all of which were recognised in the support literature discussed in chapter 2. The more permeable the boundary of the household becomes, the more it appears that the need for collaboration with one's partner could be replaced by external support.

Benefits are gained not simply from having support either within or without the home. In chapter 5, there was a demonstration of how support from outside affected that from within, and not always in a positive way. Two interviewees mentioned how receiving a lot of support from one of their own parents had actually caused problems within the household. These were only resolved when support arrangements were changed. This was not the norm, though, and most support was gratefully received. Support appeared to affect the collaborative process in four ways: by enabling collaboration; by reducing the need for collaboration in maintaining contentedness; by increasing the time available to parents (or the perception of such); and by reducing the need or ability to plan ahead. Those couples who were interviewed for this study, who lacked support from their partner, as well as from outside the home, tended to be discontent with their situation, without feeling able to improve on it. They felt pressured for time, and tended to be quite reactive in their parenting, rather than planning for the future.

The findings from the interviews need to be considered within the context of the small sample of parents who were interviewed. They are indicative of what may go on in other households, but the findings cannot be generalised. Some of the questions they raise, for example, with respect to available time, have been addressed using the

[22] See http://www.triplep.net/

quantitative data; others, such as with regard to happiness, have not. Contentedness could be considered an important outcome of collaborative parenting. While this cannot be measured using GUS data, the findings from the interviews suggest it would be worth seeking alternative data sources to examine this association.

The uneven relationship between work and collaboration

Only one of the research questions listed at the start of this chapter mention employment, yet a considerable number of words were used discussing the subject in three of the four findings chapters. The story that unfolded is one of an uneven relationship between work and collaboration. In chapter 5, the long hours that some fathers work were portrayed as a barrier to collaboration. The father used to illustrate this point, not the only one in the study, was becoming isolated from the family, because work kept him away from them. The couple painted a very negative picture of feeling unable to change this situation. At the same time, many of the other fathers worked full-time, but were able to maintain a collaborative relationship and a satisfactory work-life balance. Some achieved this by changing their job, or changing their work patterns. Others managed despite long hours. In fact, in chapter 6, it was shown that there was no statistically significant relationship between either maternal or paternal employment and collaboration.

The work-life balance issue was considered further in chapter 6, and this time it was shown that there was an inequality between the sexes in terms of the strength of associations with collaboration. Both mothers and fathers perceived less of an impact of work on their family life if they were collaborative. Only fathers, though, perceived less of an impact of family life on their work if they acted collaboratively. This is perhaps not surprising, as mothers on average spent fewer hours per week in paid employment. Further illustration of the differential impact of collaboration on men and women was provided, in that fathers were less likely to give working long hours as a reason for not having enough time with their child if they were collaborative. Mothers were actually more likely to state work as a reason for not having enough time if they were collaborative, although this last finding was not

statistically significant after controls were applied. This is not an argument against the benefits of collaboration for women, though, as collaborative mothers were less likely to cite other reasons, such as housework.

Chapter 8 demonstrated some differences between collaborative and non-collaborative families, in terms of the child's social, emotional and behavioural development. These differences were not universal, though. When the mother worked full-time, associations between collaboration and child outcomes appeared very positive. This is the type of situation where the "second shift" kicks in (Hochschild and Machung, 1989). Mothers who work are often expected to fulfil their traditional role by also taking on the majority of childcare and housework. However, when collaboration takes place, this should be avoided, and the positive associations with child behaviour can be seen. Similar positive associations could also be seen amongst the more vulnerable families, when the mother was not in employment. In such households, there may well be a quite distinct division of roles, but collaboration appears to make up for a lack of support, and some of the other problems associated with material deprivation.

In the most common household set-up, of one and a half earners, no association between collaboration and a child's behavioural development could be demonstrated. There are many possible reasons for this. It may be that the larger support networks that such couples tend to have play a part. In chapter 8, it was seen that particular parenting practices, such as singing with the child, painting or drawing with them, and restricting television viewing, predicted child behaviour when the mother was working part-time, but such associations were not significant in other situations. Rather than collaboration, it appears to be the parenting of the main caregiver which is important when she works part-time. The theory that collaboration improves outcomes because the parents converge on the better of their two approaches to each issue they face assumes a lack of convergence when collaboration does not take place. However, if most of the parenting is done by one parent who chooses a good approach in most situations, there is no gain in child outcomes from collaborating. This may be what happens in the one and a half earner situation, where the mother is

supported both by work colleagues, and the local community, gaining the information she needs to be a good parent from other parents, and maintaining her self-esteem from her employment, which, being part-time, is flexible enough to fit around the needs of her children. Collaboration with her partner, who has less time, and less access to relevant information, becomes much less necessary.

This does not mean that collaboration is not important when mothers work part-time. The findings in chapter 5 from the interviews, about contentedness, still apply. Other outcomes may also be relevant, although these have not been considered with reference to maternal employment. Further research is required to understand why there is no association between collaboration and behavioural development when mothers work part-time, and whether this is so when other outcomes are considered.

Is collaboration worth pursuing?

The associations between collaboration and various factors that could be considered positive to both children and parents alike of collaboration have already been discussed. But, under certain theoretical frameworks, collaboration is worth pursuing for its own sake. It combines the equality of shared parenting with freedom to choose, so that roles don't have to be divided down the middle, but can be negotiated as to what suits each individual, and the family as a whole. It is about trust and respect, and as such, fits in with both feminist and fathers' rights agendas. Collaboration can give mothers the opportunity to pursue employment opportunities, and fathers to take on a caregiving role, or it can allow both to take on traditional roles. While the family cannot be totally isolated from those outside, collaboration allows two parents to look past the barriers that may be placed in their way by societal norms, and the expectations of the extended family, and to negotiate a way of working as parents, that is effective for them.

To collaborate is itself a choice, which may be affected by the expectations of others, as well as workplace or government policies. The odds of parents being collaborative were 50% larger if the father's employer offered three or more different types of

family friendly scheme, such as flexi-time or subsidised childcare, a finding that was statistically significant after socioeconomic controls were applied. The odds of the parents being collaborative were 75% larger if the father's employer had a workplace nursery or crèche, even though many parents did not take up such options. Such schemes at mothers' places of employment were more weakly associated with collaborative parenting. Of course, the direction of any causality is not clear, and it may be that collaborative parents are more likely to enquire about, or be aware of, such policies.

Government policies, such as with regard to paternity leave, may also provide barriers or enable collaboration, although these have not been considered in this thesis. It has been shown, though, that characteristics of the father or the couple, rather than the mother, are better predictors of collaboration. This is probably because there is more variation in the level of involvement of the father with the child, than in the level of involvement of the mother. It could therefore be assumed that policies which promote paternal involvement would also be of benefit to the promotion of collaboration. In countries where parental leave in the early years of a child's life is distributed more evenly between mothers and fathers, fathers do turn out to be more involved with their children. Schemes that are specifically aimed at fathers, and which offer a reasonable proportion of the employees normal wage tended to be better utilised (O'Brien, 2009; Hook, 2006). However, what is just as important is breaking down the societal norms and the culture of workplaces that can put men in a position of expecting to leave most of the work of raising a child to their partners (Haas and Hwang, forthcoming).

An alternative to workplace policies for the promotion of collaboration are ones based on education. A couple of studies in the US have begun to look at coparenting education as a way of helping families prepare for parenthood (Fagan, 2008; Feinberg and Kan, 2008; Feinberg, Kan and Goslin, 2009). It is not clear, from the published literature, how these programmes differentiate themselves from ones promoting involved fathering, or ones offering relationship advice to parents, or even

ones offering general parenting advice. Given the difficulty in isolating the particular aspect of a relationship relating to parenting, I would argue that it may not be helpful to promote collaboration in the absence of these other concepts. By ignoring the rest of the relationship, one would be promoting the idea of working together, and possibly staying together, purely for the sake of the children. The concept of teaching collaborative parenting, though, as part of more general parenting or relationship education, is worth further consideration.

The methodological challenge

A very important part of this thesis has been developing a methodology, using government survey data, to address each of the research questions. The main issue is that no large survey in the UK has been set up to address the concept of collaboration.

Most textbooks on conducting secondary analysis either ignore the construction of variables, or describe a process of combining indicators into a scalar variable. This is akin to piling bricks on top of each other to make a tower, and using the height of the tower as a measure of the concept for each case. The reliability of the variable would then be tested, for example, using Cronbach's alpha, to make sure that all the separate indicators are associated with each other, or that all the bricks are aligned. Any indicators that do not fit with the others are removed.

There are two major problems with this. Firstly, there is no check that the tower is pointing in the right direction. The indicators may all be measuring roughly the same thing, but that thing is not necessarily the concept being studied. And secondly, what happens if the dataset does not contain a set of indicators that can be combined in this manner?

To get around the second of these problems, I have proposed an alternative way of combining indicators (see Hinchliffe, 2012). Rather than assuming they are additive, and trying to build a tower, I have started with a single large block, and chipped

away, using indicators of non-collaboration to remove cases. What is left is only those cases for which there is no strong evidence of non-collaboration, which are therefore assumed to be collaborative. Thus, a binary variable for the concept of collaboration has been constructed. There are issues with this method, which were discussed in chapter 4. Couples do not either collaborate or not. However, the variable, as constructed, has proved to be a useful one.

In addition, I conducted a series of qualitative interviews, and compared the assessment of collaboration using the qualitative data with the assessment of collaboration using my operationalisation of collaboration within the survey data, and found a very good match. This was taken to mean that the descriptions of collaboration in the interview data could be used to illustrate the findings from the quantitative analysis.

Conducting, transcribing and analysing interviews took a large proportion of the time given to this study. If their sole use had been for illustration, one would have to question the usefulness of such a methodology. However, the interviews transformed this piece of research into a true mixed-methods thesis. They helped to gain access to the process of collaboration, which could not have been done using survey data alone. They gave rise to questions, some of which were addressed in the subsequent analysis. And they demonstrated the differences between real situations, and the clean theoretical ones, clarifying the meaning of some of the quantitative analysis.

Where next?

There are many directions in which I would like to take this research in the future. Probably the most important follow-up work would be to establish collaboration as a concept that is properly discussed within a children and families sociology and social policy set-up. At present, it has only really been discussed in US psychological literature, under the guise of coparenting. To do this would mean expanding the number of datasets allowing the exploration of the concept, either by going through

the same sort of methodological process as was used with GUS, or by developing a suite of questions that could be promoted for use in appropriate studies.

In this thesis, I have considered only the Scottish context. One obvious step would be to expand this by using the Millennium Cohort Study (MCS), to address the same research questions in a UK context. At the very start of this project, I looked at a number of birth cohort studies, including the MCS, the Longitudinal Study of Australian Children, and the Danish Longitudinal Study of Children, and concluded that they were not directly comparable, for reasons such as different ages of children, different time periods, and different questions. To some extent, the methodology used on the GUS data could be applied to each, to give a binary variable for collaboration, which may still have face validity, even if different indicators were used, but the conducting of follow-up interviews would be impractical.

A potentially better option would be to develop a properly tested scalar variable for collaboration, which could be promoted for use in surveys such as GUS. An example of the sort of questions which could be asked is given in appendix A2. Such an operationalisation would probably help strengthen the findings from this thesis, and hence strengthen the argument for pursuing collaboration as a concept worth taking further.

Various analyses of interest have already been pointed out. The main outcome variable used was the SDQ total difficulties score, which measured maternal reports of children's social, emotional and behavioural difficulties. It would definitely be worth considering other child outcome variables, such as children's cognitive abilities, and as time progresses, other academic outcomes, as well as outcomes for the parents, such as levels of happiness, which have only been looked at using the qualitative data. None of these are currently available for the GUS child cohort, which was used throughout this thesis, so use of alternative data would be necessary.

The consideration of the interaction between maternal employment and collaboration, particularly when the household was considered "at risk", was

hampered by the size of the dataset. Use of a larger dataset would provide a greater degree of confidence in the findings.

Further work would also be useful on the direction of some of the associations identified, using structural equation modelling to test, for example, the degree to which a lack of collaboration causes stress, or stress causes a lack of collaboration.

Only once the benefits of collaboration had been properly agreed, would it be worth moving on to the next stage, of actually considering how the findings of this and subsequent studies could be used by family practitioners and policy makers. The trials of coparenting education in the United States are at an early stage, but the results of these could help direct similar trials in the UK. As I previously suggested, though, collaboration is only one aspect of parenting, and so, its promotion may well be better done in combination with more general parenting and relationship advice.

This thesis is only a starting point, taking a concept from US family therapy and psychology literature, and adapting it by turning to the wider academic literature on collaboration between individuals or organisations, to create something that I believe deserves to be scrutinised by a more general social science audience. It has a long way to go before I can claim the promotion of collaborative parenting is really worthwhile, but by following up my work in the manner suggested, I could get closer to an answer.

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Appendix

A1 Growing Up in Scotland: details of sampling, data collection, response rates and weighting procedures

Sampling

Sampling was carried out by the Department for Work and Pensions (DWP), using child benefit records. The sampling was conducted on an area basis, using aggregations of data zones[23], such that each cluster contained around 57 births per year. The clusters were stratified by local authority and by Scottish Index of Multiple Deprivation[24] score. 130 sample clusters were randomly selected. All babies within each of these clusters were selected to form the sample for the birth cohort, and 60% of toddlers meeting the specified age criteria were selected to form the sample for the older cohort. If more than one child in any household was included in the sample, either twins, or in different cohorts, one was randomly chosen. A number of further exclusions were made by the DWP, including cases that were considered sensitive, and households that have been sampled for other studies by the DWP in the previous 3 years.

Data collection

Interviews were carried out by trained interviewers on behalf of ScotCen in participants' homes, using Computer Assisted Personal Interviewing (CAPI). For those questions which may be considered sensitive, the respondents input their answers into the computer themselves. Interviews with the main carer took on average just over an hour each, while the partner interview at sweep 2 was a little shorter. The timings of the interviews were such that they were intended to take place

[23] Datazones are postcode-based building blocks for small-area geographical identifiers used in the production of statistics by the Scottish Government. For more information, see the Scottish Neighbourhood Statistics website: http://www.sns.gov.uk.
[24] See http://www.scotland.gov.uk/Topics/Statistics/SIMD.

between one and two months prior to the child's birthday, though a little leeway was allowed when interviews were difficult to obtain.

A2 Example of scale for the measurement of collaboration

Ideally questions would be asked of both parents, but gaining responses from one parent only should be sufficient. The respondent would be asked to provide responses to each statement on a five-point scale, from strongly agree to strongly disagree. Some questions are worded so that scores would have to be reversed before the scale can be summed.

Communication

1. {Partner} and I communicate well about our child
2. {Partner} and I have discussed the roles we each take on as parents
3. Talking to {partner} about {child} is something I look forward to
4. {Partner} fills me in on what happens while I am away from {child}
5. {Partner} argues with me about {child}

Working together / agreement / goals

6. {Partner} asks my opinion on issues relating to parenting
7. If {child} needs to be punished, {partner} and I usually agree on the type of punishment
8. {Partner} and I have different long-term goals for {child}
9. {Partner} and I have different rules regarding food, chores, television, computers, bedtime or homework
10. {Partner} and I have different standards for {child}'s behaviour

Support

11. {Partner} believes I am a good parent
12. {Partner} supports the way I want to raise my child
13. {Partner} supports my discipline decisions
14. {Partner} undermines my parenting
15. {Partner} listens to my concerns about {child}

Joint responsibility

16. {Partner} shares the burden of discipline

17. {Partner} and I take equal responsibility for issues regarding {child}'s education
18. {Partner} and I take equal responsibility for issues regarding {child}'s behaviour
19. {Partner} and I both make efforts to spend plenty of time with {child}
20. {Partner} and I both do a fair share of the childcare

A3 Handouts for interviews: study description, consent form and list of numbers

The items on the following four pages were handed out at the start of each interview, together with two publications from CRFR on parenting matters. Interviewees were encouraged to read the information sheet, and ask any questions, and then asked to sign the consent form.

Growing Up in Scotland: Couple Collaboration Study

You have been invited to take part in the Couple Collaboration Study, conducted by Stephen Hinchliffe, of the University of Edinburgh. Your participation is warmly appreciated.

About the study

The couple collaboration study aims to examine the ways in which couples work together in raising their children. The initial stage of the study was based on analysis of data from the first three sweeps from the Growing Up in Scotland study. This highlighted the wide range of ways in which couples collaborate.

The follow-up interviews are intended to examine the process of collaboration in much greater detail. 20 couples have been selected from those who had previously given their consent to be contacted about further research following participation in the Growing Up in Scotland study. It is hoped that the findings will be used by policy makers to identify ways in which to support different styles of parenting.

About the interviews

Interviews are requested with both resident parents (including step-parents). Each interview will last around one hour. It is important that interviews are conducted separately, so that differences between responses can be identified, and in privacy, so that it is possible to discuss issues which you may not wish children to overhear.

Interviews will be recorded. If at any stage you wish me to stop the recording or to end the interview, please let me know. Some of the questions asked may concern subjects you would prefer not to discuss with me. While I will only ask questions which are relevant to my research, if there are any questions you do not wish to answer, say so, and we will move on.

What happens to the recordings?

Your responses will be used to inform my doctoral thesis and any academic publications which stem from my research. Some direct quotes from the recording may be used in the thesis and any published work. As my research is sponsored by the Scottish Government, I will also be providing them with a summary of my findings, which may be used to inform 'early years' policy. Your responses will, however, remain totally confidential. In any materials I produce, pseudonyms will be used, and you will be in no way identifiable to any reader, except for me, you, and possibly your partner. The recordings will be destroyed once they are no longer required for my doctoral studies. With your permission, I would like to lodge an anonymised transcription of the interviews with the UK Data Archive, so that they can be used by other researchers in the future.

Links to the Growing Up in Scotland study

In order to save time in asking questions you have previously answered as part of the Growing Up in Scotland study, I would like to be able to connect your responses to these interviews with responses you have previously given. I therefore request your permission for the Growing up in Scotland team at the Scottish Centre for Social Research to provide me with details of your previous responses.

What's in it for you?

As a token of my appreciation, on the completion of both interviews, each couple will be left with a gift voucher for £30. Findings from the study will be made available through the Growing Up in Scotland team at the end of the project in around 18 months' time. You will also receive a short note of my preliminary findings after the completion of all the interviews.

Many thanks for your time.

Stephen Hinchliffe
University of Edinburgh
March 2010

Couple Collaboration Study

Consent form

I give my permission to be interviewed and recorded as part of the Couple Collaboration Study. I confirm that I have read the information sheet, and understand that all responses will be treated confidentially. I understand that participation is voluntary, and I have the right to refuse to answer any questions and withdraw at any time. I give permission for the principal researcher, Stephen Hinchliffe, to present any work resulting from the interviews in both written and oral form, without the requirement for further permission, providing my identity is not disclosed.

Signed: Respondent 1.....
Respondent 2.....

I give permission for a transcription of the interviews to be lodged with the UK Data Archive, or similar body, so that it may be used in future research. The transcription will be totally anonymous, so that no one accessing it will be able to identify me.

Signed: Respondent 1.....
Respondent 2.....

I give permission for Stephen Hinchliffe only to be provided with the personal identifier which will allow him to link my responses to Growing Up in Scotland interviews with interviews conducted as part of the Couple Collaboration Study.

Signed: Respondent 1.....
Respondent 2.....

Date.....

The interviews may raise issues which you wish to discuss further. While I am not able to provide support for such issues, the following websites and phone numbers may be of help.

Parenting Across Scotland 0131 319 8071
http://www.parentingacrossscotland.org
An information and support service for parents in Scotland.

ParentLine Scotland 0808 800 2222
www.children1st.org.uk/services/46/parentline-scotland
A telephone helpline service, giving gives parents the chance to ask about things that are worrying them.

Scottish Childcare
http://www.scottishchildcare.gov.uk
A government website providing information about pre-school education and childcare provision in Scotland.

Parent Network Scotland 0141 948 0022
http://www.parentnetworkscotland.org.uk
An organisation that offers courses and workshops in parenting skills for parents and professionals.

Scottish Women's Aid 0131 226 6606
www.scottishwomensaid.org.uk
Advice, support and refuge for women who have been abused mentally, physically or sexually (by their partner or ex-partner), and their children.

Alcohol Focus Scotland 0141 572 6700
www.alcohol-focus-scotland.org.uk
Provides free, confidential counselling services for people affected by alcohol problems. Promotes safer, healthier drinking styles, but is not anti-alcohol.

FRANK (National drugs helpline) 0800 77 66 00
www.talktofrank.com
Free 24-hour confidential drug information, advice and counselling service.

Relate Scotland 0845 119 6088
www.relatescotland.org.uk
Offers advice, relationship counselling, sex therapy, consultations and support face-to-face, by phone and through website.

The Samaritans 08457 90 90 90
www.samaritans.org
Provides confidential, non-judgemental support, 24 hours a day for people experiencing feelings of stress or despair, including those which would lead to suicide.

If you have any questions about the Growing Up in Scotland study, please contact the GUS team on 0800 652 2704 www.crfr.ac.uk/gus

If you have any questions about the Couple Collaboration study, please contact Stephen Hinchliffe, on 07906 327 653.

A4 Regression models

Multiple linear regression

Multiple linear (ordinary least squares) regression, is the basic form of regression modelling. It allows one to build up a model for the prediction of the value of a "dependent" variable, based on the values of a number of "independent" variables. The model can be expressed as an equation, taking the form:

$$y = a + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n + \varepsilon$$

Where y is the value of the dependent variable, that which is being predicted;

a is the value of the intercept;

X_1 to X_n are the values of the n independent variables;

b_1 to b_n are the coefficients relating to these variables;

ε is the error term, the difference between what may be predicted, given the values of the independent variables, and the actual value of the dependent variable for a particular case.

Once the model has been constructed, the values a, and b_1 to b_n, all remain constant. Different values of the independent variables can be plugged in to the equation to predict the value of the dependent one.

Assumptions

A number of assumptions are built into this model. For each linear regression model included in the analysis, the validity of each of these assumptions was tested, both before the model construction took place, on individual variables and associations, and afterwards, on the association between the variate (the combination of independent variables) and the dependent variable. Testing before the model has been built is important, as it avoids misrepresenting variables in the model. It is also helpful in pre-empting problems that may otherwise have been identified in the

complete model. While testing the relationship between every potential independent variable and dependent variable for each model may appear burdensome, the reality is that only one dependent variable has been used, and the same set of independent variables was considered each time, so pre-model testing was only completed once.

Assumption 1: the dependent variable is a continuous one, taking any value. In practice, some leeway can be taken with this assumption. For example, the "total difficulties" score can only take whole number values between 0 and 40. This means that the model will nearly always predict impossible scores, generally non-whole numbers, but occasionally scores that are out of range, less than 0 or greater than 40.

Assumption 2: the dependent variable is normally distributed. This is not a requirement for valid modelling, but when this is not the case, it is likely that a number of the other assumptions will also be violated. The limited number of possible values clearly affects the distribution, but 41 possible values are sufficient to demonstrate a roughly normal distribution. In fact, the distribution of the "total difficulties" score is skewed, with far more low scores than high ones. To get round this problem, rather than modelling the actual score, the square root of the score has been used. This has the effect of spreading out lower scores, and condensing higher ones, so the distribution more closely resembles a normal one.

Assumption 3: each case in the data is independent of the other cases. The clustered nature of the GUS sample means that this does not necessarily hold, as parents with children of the same age in the same area may well know each other, and influence each other. This, however, is taken into account when using the complex samples module of SPSS. The main effect of using this module is to increase the size of confidence intervals around any estimate, and decreasing the likelihood of finding statistically significant associations.

Assumption 4: all of the independent variables are either binary or continuous, although ordinal scales with many possible values will also work in practice. It is

easy to ensure that this assumption holds, as the complex sample module of SPSS automatically converts categorical variables into a series of binary ones.

Assumption 5: all the independent variables are independent of each other, i.e. there is no multicollinearity. If this were to be applied strictly, it would not be possible to include, say, education level and income as independent variables in the same model. However, the association between the two is not strong enough for the working of the model to be seriously impaired, and so tests for multicollinearity on the GUS data suggest the two can be included in the same model. All models have been tested for multicollinearity, by examining the variance inflation factors, and no problems occur in the models as presented.

Assumption 6: there is a linear association between the dependent variable and each of the independent ones. It is therefore necessary to examine the relationship between each independent variable and the dependent one to check that this holds. No continuous independent variables have been used. For binary independent variables, linearity clearly cannot occur, but it can normally be assumed, unless there is an unusual relationship in which one value of the binary variable predicts both low and high values of the dependent one, while the other predicts values closer to the average. This would be obvious from a plot of standardised residuals (error terms / difference between the predicted and actual values) against predicted values. For binary variables, comparison of boxplots makes this easier. A non-linear relationship would show up as a clear pattern in the scatterplot, or clear differences in the boxplots. In such cases, it is necessary to either split the data or to transform the data in some way. No such non-linear relationships were found once the dependent variable (the "total difficulties" score) had been transformed by taking its square root.

Assumption 7: error terms are of equal variance (homoscedasticity). This can again be checked by plotting standardised residuals against predicted values. If no pattern is evident, then the assumption holds. For single binary independent variables, the occurrence of heteroscedasticity (error terms having unequal variance) effectively

means the same as the sort of non-linear relationship described above. Again, there were no serious issues of heteroscedasticity.

Assumption 8: residuals are normally distributed for each possible set of values of the independent variables. This can be checked by producing a normal probability plot of the standardised residuals. If the residuals are normally distributed, they should lie along a straight diagonal line. For binary independent variables, the line produced is not continuous, but any significant deviation from normality can still be observed. As the variate is constructed from a number of variables, the line becomes smoother. None of the analyses produced plots which demonstrated much deviation from normality, given the limitations of having no continuous independent variables in most of the analyses.

Model construction

Models were initially constructed using SPSS Complex Samples General Linear Model to include all identified potential independent variables. They were then reduced to a more manageable model by removing the variables with the least significant associations with the dependent variable, and by removing variables causing multicollinearity, one at a time. As the process continued until most of the variables in the model had a significance level of less than 0.05, variables that had been removed with a significance level of less than 0.2 were reintroduced, to check for any improvements in the model construction. Models were also constructed from the beginning with and without any income variables, as the smaller sample size when income was included, due to missing values in the income variables, was often sufficient to change the significance level of some other variables.

After comparing several similar models, the one which explained the greatest amount of variation (the one with the highest value of R square), which also contained only variables with a significance level of less than 0.05, was chosen.

In some models, interaction effects were included. Interactions occur when the association between one independent variable and the dependent variable depends on

the value of another independent variable. Allowing all interaction effects complicated the models enormously, and led to a number of the model assumptions being violated. Interactions were therefore only considered with the collaboration variable.

No consideration was given to outliers or otherwise influential cases, as the nature of the independent variables, being entirely categorical, meant that no cases stood out as being particularly different from others.

For a more complete description of multiple regression modelling, see Hair et al. (2006), chapter 4.

Logistic regression

Logistic regression is similar to linear regression in many ways. It allows one to construct a model for the prediction of the probability that a binary dependent variable is in a particular category, for given values of the independent variables. Because of the nature of the dependent variable, there are fewer assumptions that have to be met. The interpretation of the model is, however, slightly more difficult. The equation of the model is as follows:

$$\log\left(\frac{\theta}{1-\theta}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n$$

Where θ is the probability of the binary dependent variable taking the value 1;

β_0 is the value of the intercept;

X_1 to X_n are the values of the n independent variables;

β_1 to β_n are the coefficients relating to these variables.

In chapters 6 and 7, a logistic regression model, with collaboration as the dependent variable, is presented. This is used as the basis for a number of other models, introducing additional independent variables, which are only shown in part. A number of other logistic regression models are discussed in chapter 8, and presented in appendix A9. These all have dependent variables representing above average or abnormal scores on the subscales of the Strengths and Difficulties Questionnaire (SDQ), which assesses social, emotional and behavioural development.

Assumptions

Many of the assumptions of linear regression are not relevant to logistic regression. Those that are still important are that the cases are independent of each other, which is taken into account by the SPSS complex samples package; that the independent variables are binary or continuous, which is the case when all nominal variables are converted to binary ones; and that there is no multicollinearity. This cannot be checked directly when running a logistic regression in SPSS, but has been checked by putting the same variables into a linear regression model. No multicollinearity occurs in any of the models presented.

An additional assumption is that the categories of binary variables should contain roughly equal numbers of cases. This is very difficult to meet with real data, but the models work reasonably well, providing the base category is not much smaller than the other category.

Model construction

Models were constructed in much the same way as for the linear models, using SPSS Complex Samples Logistic Regression. Interaction effects were not considered.

For more details on logistic regression, see Hair et al. (2006), chapter 5, or Agresti (2002), chapters 5 and 6.

Ordinal regression

Ordinal regression is an extension of binary logistic regression. Rather than modelling the probability of belonging to a single category, it models the cumulative probability of being in the particular category or a lower category, from an ordered list of three or more categories. It has been used in chapter 8 to examine the subscales of the Strengths and Difficulties Questionnaire. The exact meaning of figures presented as a result of an ordinal regression is often hard to interpret, but the overall picture shown is much clearer than examining the series of logistic regressions that would be required to utilise the same information. A number of different ways of producing a model are possible, and two have been used.

The equation for the logit model appears very similar to that given for binary logistic regression. This has been used for the hyperactivity subscale (see table A9.6):

$$\log\left(\frac{\theta_j}{1-\theta_j}\right) = \alpha_j - \left(\beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n\right)$$

For most of the models, a complementary log-log function is used instead. This is more useful when the distribution of categories within the dependent variable is skewed, as is the case for most of the SDQ subscales. The equation for these models is:

$$\log\left(-\log\left(1-\theta_j\right)\right) = \alpha_j - \left(\beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n\right)$$

Where j = 1 to k-1, for a dependent variable with k categories;

θ_j is the probability of being in the j^{th} category or below;

α_j is a constant (the threshold), with $\alpha_1 < \alpha_2 < \ldots < \alpha_{k-1}$;

X_1 to X_n are the values of the n independent variables;

β_1 to β_n are the coefficients relating to these variables.

Assumptions

All of the assumptions which applied to logistic regression also apply to ordinal regression. An additional assumption is that of parallel odds. This requires that the independent variables have the same association with the odds, for all categories – i.e. the coefficients are constant for all values of j. This can easily be tested in SPSS, and no issues were found for any of the models.

Reported values

The coefficients and exponentiated coefficients can be interpreted in a similar way to those for logistic regression, although only the actual coefficients are provided, as no discussion is made of their values. There are two differences, though. First, rather than representing the odds of the dependent variable taking the value 1, they represent the odds of the dependent variable being in a higher category. Each of the subscales can take any value from 0 to 10, so the coefficients represent the odds of, say, having the value 4 or above, compared to 3 or below. The assumption of parallel odds means that this only differs from the odds of having the value 3 or above, compared to 2 or below, by the value of the threshold constant. The second difference is the sign. The negative sign, as shown in the above equations, means that the interpretation of the coefficients is the other way round from those in a binary logistic regression. In the binary logistic regression, a coefficient greater than 0 (and hence an exponentiated coefficient greater than 1), meant an increased likelihood of the dependent variable being in the higher category, compared to when the independent variable is in the base category. In the ordinal regression, a coefficient greater than 0 means an increased likelihood of the dependent variable being in a lower category.

Model construction

Models were constructed in much the same way as for the other models, using SPSS Complex Samples Ordinal Regression. Interaction effects were not considered.
A fuller account of ordinal regression can be found in Powers and Xie (2008), chapter 7.

A5 Details of control variables used in logistic regression analysis for prediction of collaboration

Percentages provided below are unweighted, on the 1,271 cases used in the construction for a model of collaboration (chapter 6). Only variables marked with an asterisk are included in the final model.

The following variables are the same as those listed in appendix A8:

Sex of child
Number of children in household (Sweep 3)
Birth order of study child
****Child's general health (Sweeps 1 to 3)***
At least one parent not in good health (Sweep 2)
Respondent's ethnicity
Mother's and *father's age at birth of study child (Sweep 3)
Difference in parents' ages (Sweep 3)
Mother's and *father's highest level of education (Sweep 2)
Mother and father employed (Sweep 2)
Household employment structure (Sweep 2)
****Household socioeconomic classification (Sweep 2)***
****Benefits (Sweep 2)***
Material deprivation (number of desired items for household cannot afford) (Sweep 4)
Material deprivation (number of desired items for children cannot afford) (Sweep 4)
Housing tenure (Sweep 2)
Area deprivation (Sweep 2)

The following variables require additional explanation:

Mother's and *father's ethnicity (Sweep 2)

Ethnicity of respondent and partner, reassigned to mother and father.

	White	Non-white	*Missing*
Mother's ethnicity	97%	3%	*6*
Father's ethnicity	97%	3%	*36*

Mother's and father's religion (Sweep 2)

Religion of respondent and partner, reassigned to mother and father.

	No religion	Protestant	Roman Catholic	Non-Christian	*Missing*
Mother's religion	53%	33%	12%	2%	*5*
Father's religion	58%	29%	11%	2%	*38*

****Marital status of parents (Sweep 2)***

Legal marital status of parents. "Married" includes being in a civil partnership.

	Married	Cohabiting	*Missing*
Marital status	80%	20%	*4*

****Length of time couple have lived together (Sweep 1)***

At sweep 1, the couple were asked how long they had been living together. The data is presented as if it were from sweep 2, as most of the other variables in the model are from sweep 2. Up to 2 years (i.e. not living together at time of birth), 2 to 5 years, 5 to 10 years, 10 years or more. Presented in tables as if sweep 2, to avoid confusion.

	Up to 3 years	3 to 6 years	6 to 11 years	11 years or more	*Missing*
Length of time living together	5%	11%	42%	42%	*0*

Difference in highest level of education (Sweep 2)

Maternal and paternal highest level of education calculated as in appendix A8. Any difference between the two was recorded.

	No difference	Father educated to higher level	Mother educated to higher level	*Missing*
Difference in parental education	42%	24%	33%	*67*

Mother's and father's socioeconomic classification

Respondent's and partner's socioeconomic classification, reassigned to mother and father. Based on current or most recent employment.

	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine / routine occupations and never worked
Mother's socioeconomic classification	45%	18%	7%	5%	25%
				Missing	*4*
Father's socioeconomic classification	48%	6%	12%	*17%*	*17%*
				Missing	*3*

Difference in socioeconomic classification (Sweep 2)

Maternal and paternal socioeconomic classification, as described above. Any difference between the two was recorded.

	No difference	Father in higher class	Mother in higher class	*Missing*
Difference in parental socioeconomic classification	39%	32%	29%	*4*

Income quintiles (Sweep 2)

Based on maternal reports of total household income, before tax, from employment, benefits, interest on savings, etc. Respondents were asked to choose from 17 bands, which have been reduced to 5, to roughly represent income quintiles

	< £20,000	£20,000 to £28,999	£29,000 to £37,999	£38,000 to £49,999	£50,000 +
Income quintiles	19%	20%	19%	19%	22%
				Missing	*67*

Urban-rural classification of neighbourhood (Sweep 2)

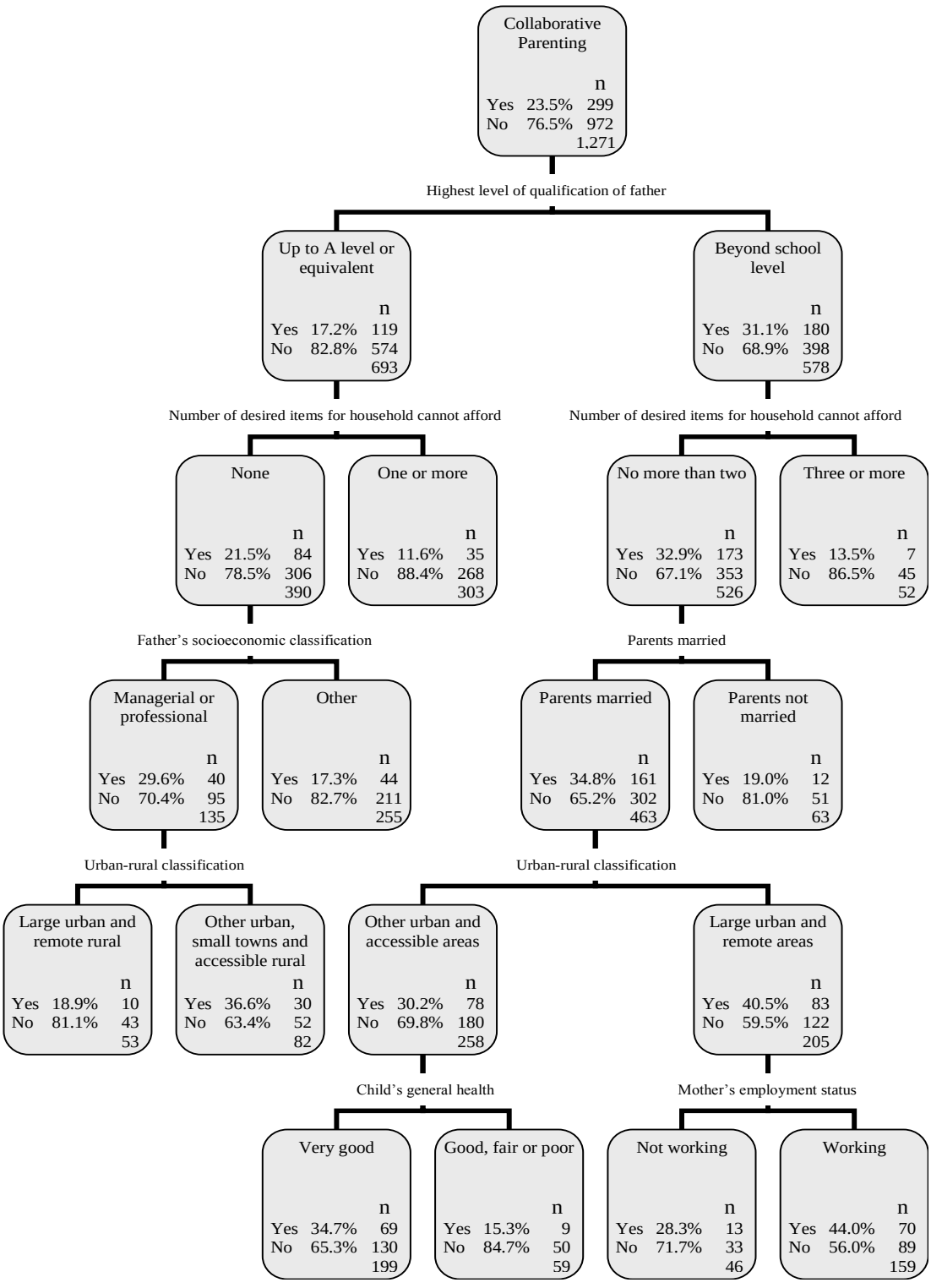
Scottish Government 6-fold classification of urban or rural nature of postcode: Large urban areas – settlements with a population of 125,000 or more (Glasgow, Edinburgh, Aberdeen and Dundee); other urban areas – settlements with a population of 10,000 or more; accessible small towns – settlements with a population of between 3,000 and 9,999, within 30 minutes' drive of a settlement with a population of 10,000 or more; remote small towns – settlements with a population of between 3,000 and 9,999, *not* within 30 minutes' drive of a settlement with a population of

10,000 or more; accessible rural areas – settlements with a population of less than 3,000, within 30 minutes' drive of a settlement with a population of 10,000 or more; remote rural areas – settlements with a population of less than 3,000, *not* within 30 minutes' drive of a settlement with a population of 10,000 or more.

	Large urban	Other urban	Accessible small town	Remote small town	Accessible rural	Remote rural
Urban rural classification	33%	29%	11%	3%	17%	7%
					Missing	*4*

A6 Classification tree of collaboration

Figure A6. 1 Classification tree of collaboration



Growing Method: CRT
Risk Estimate: 0.235
Data not weighted

A7 Supplementary tables for chapter 7

Table A7.1 Sources of information used for, and important factors in choice of primary school, by collaboration and support

	External collaborators	Internal collaborators	Non-collaborators with support	Non-collaborators without support	All	Unweighted count		Sig1	Sig2	Sig3	Exp2	Exp3
Mean number of different sources of information used in choosing[1]												
Pre-school	1.31	1.17	1.09	1.16	1.16	*1,270*		-	-	-	1.08	1.01
Primary school	1.59	1.63	1.38	1.40	1.44	*1,270*		-	*	-	1.12	1.05
Sought advice on school from website												
Yes	13.7%	11.7%	5.5%	7.4%	7.9%	*100*		**	**	*	2.13	1.81
No	86.3%	88.3%	94.5%	92.6%	92.1%	*1,166*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,266*						
Important factor in choice of school is good reputation of school												
Yes	38.7%	47.1%	34.7%	42.4%	39.5%	*505*		*	-	-	1.16	0.93
No	61.3%	52.9%	65.3%	57.6%	60.5%	*761*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,266*						
Important factor in choice of school is childcare facilities												
Yes	8.5%	14.5%	5.5%	4.9%	6.5%	*84*		**	**	*	2.23	2.09
No	91.5%	85.5%	94.5%	95.1%	93.5%	*1,182*						
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,266*						
Main factor in choice of school												
School is nearest to home	39.3%	33.3%	36.2%	28.3%	33.3%	*402*		*	-	-	1.24	1.34
Friend / relative / sibling goes / went there	22.5%	25.1%	24.6%	28.2%	25.8%	*306*		-	-	-	0.86	1.04
School has good reputation	10.1%	14.9%	11.3%	14.2%	12.6%	*158*		-	-	-	0.74	0.75
School made good impression	14.7%	14.4%	14.5%	18.0%	15.9%	*193*		-	-	-	0.87	0.74
Other reasons	13.3%	12.3%	13.3%	11.2%	12.4%	*150*		-	-	-	1.06	1.00
All	100.0%	100.0%	100.0%	100.0%	100.0%	*1,209*						
Sample size	*175*	*123*	*474*	*498*	*1,270*							

Sig1: Significant difference between 4 groups: * at 5% level, ** at 1% level, - not significant
Sig2: Significant difference between collaborators and non-collaborators: * at 5% level, ** at 1% level, - not significant
Sig3: Significant difference between collaborators and non-collaborators after controlling for being married, duration of living together, father's age, household socioeconomic status, whether either parent on benefits, father's highest level of education, father's ethnicity, and child's general health: * at 5% level, ** at 1% level, - not significant
Exp2: Exponent of coefficient for association between collaboration and named variable, before controls applied
Exp3: Exponent of coefficient for association between collaboration and named variable after controlling for variables listed above
1: In calculating the mean number of different sources used, information from multiple sources within one of the listed categories was counted once only. Listed categories were: pre-school staff, other carers, LA staff, social workers, other professionals, own / partner's parents, own / partner's siblings, internet, books / written material, TV / radio, other, with an additional category of primary school staff for choice of school.

Growing Up in Scotland, child cohort, sweeps 3 & 4

A8 Details of control variables used in SDQ regression analyses

Percentages provided below are unweighted, on the 1,271 cases used in the analysis in chapter 8.

Parenting
Reading to child (Sweep 2)

Reading to the child was actually measured in two places in the sweep 2 questionnaire, with each showing similar responses. The selected question was taken from the set of activities questions used to calculate involvement (see section 8.3.2):

Can you tell me how often you read to {him}?

If either respondent or partner says they read to the child daily, or both say that they read to the child a few times a week, then it was assumed the child was read to daily, else it was recorded as less often.

	Yes	No	*Missing*
Child read to daily	76%	24%	*1*

An alternative variable could have been derived from the activities with the child questions used in chapter 6 (see section 6.3.4).

Activities with child (Sweep 1)

7 binary variables were derived from a set of variables recording the frequency with which the respondent or her partner does particular activities with the child. The original variables had nine possible responses, from most or every day, to never. The questions asked were:

How often does {childname} eat with you and other family members?
How often do you or {Partnername} take {childname} to the park or playground?
How often do you or {Partnername} take {childname} to visit friends who have young children?
How often do you or {Partnername} paint or draw together with {childname}?
How often do you or {Partnername} ever play at recognising letters, words, numbers or shapes with {childname}?
How often do you or {Partnername} play indoor or outdoor games with {childname}?
How often do you or {Partnername} recite nursery rhymes or sing songs with {childname}?

Derived variables recorded the frequency of:

	Frequently	Less often	*Missing*
Eating together	96% most or every day	4%	*2*
Going to park or playground	78% at least once a week	22%	*2*
Visiting friends with young children	79% at least once a fortnight	21%	*3*
Painting or drawing together	43% most or every day	57%	*2*
Playing at recognising letters, words, numbers or shapes	91% at least once a week	9%	*2*
Playing indoor or outdoor games	92% most or every day	8%	*0*
Reciting nursery rhymes or singing songs	85% most or every day	15%	*0*

The main issue with some of these variables is that they are very skewed towards doing the activity every day. For the most skewed variables, a strong effect is required to demonstrate a significant association in the regression analysis.

Watching TV (Sweep 2)

The sweep 2 version of the variable examined in chapter 7 (see section 7.3.3) on the amount of television watched by child on a weekday was recoded into a binary variable:

How long would {childname} usually watch television for in total on an average weekday?

	Less than 3 hours	3 hours or more	*Missing*
Number of hours watching TV	91%	9%	*4*

Childcare

Use of childcare (Sweep 1)

4 binary variables were derived from the sweep 1 data, concerning the type of childcare used. More than one type of provider was allowed. The four types were:

		Missing
Grandparents	60%	*0*

Other informal arrangements (other relative, ex-partner, child, friend or neighbour, babysitter)	10%	*0*
Formal arrangement for individual childcare (childminder, nanny, childcarer from agency)	12%	*0*
Group childcare (crèche, nursery, playgroup, pre-school, family centre)	49%	*0*

Distinctions between formal and informal group childcare were not made, as there may have been some confusion on the part of respondents as to whether to include playgroups or family centres at which the parent remained with the child. Such situations should not really be classified as childcare.

Characteristics of child and position in family

Sex of child

	Male	Female	*Missing*
Sex of child	50%	50%	*0*

Number of children in household (Sweep 3)

	One	Two	Three	Four	*Missing*
Number of children in household	18%	56%	21%	5%	*0*

This variable could have been derived at any one of the four sweeps. Sweep 3 was chosen, as it gave one year between this variable and the outcome variable, during which time any potential changes in the child's behaviour should have occurred. Earlier sweeps would have missed additional younger children.

Birth order of study child

	First	Second	Third or later	*Missing*
Birth order	46%	37%	18%	*0*

Delays in motor development (Sweep 1)

The number of actions (up to 14), which the respondent said that the child was unable to perform at age 34 months. Actions were taken from the Denver Development Screening Test, which assesses achievement of milestones in fine and gross motor co-ordination appropriate to that age. The items included were:

Walk on the level without difficulties
Walk up steps like an adult, one foot on each step
Balance on one foot for at least four seconds

Hop at least twice on one foot
Throw a ball
Grasp and handle small objects such as a pencil and scissors
Undo big buttons
Draw a circle
Hold a pencil and scribble
Copy a square
Drink from a cup
Brush his/her teeth without help at least some of the time
Put on a T-shirt by him/herself
Get dressed without any help

	None	One	Two	Three or more	*Missing*
Number of items unable to perform	18%	28%	23%	31%	*2*

As the recording of these was by no means objective, what one mother interprets as drawing a circle could easily be interpreted as not being able to do so by another. The reality of delays in motor development could be partially hidden by expectations, which could easily be systematically affected by socioeconomic factors.

Delays in language development (Sweep 1)

A variable was derived to record any difficulties in the child's speech being understood (at age 34 months) by either the respondent, friends and family or strangers. 3 questions were asked:

Can {childname} be understood when speaking (in his own language)
...by you?
...by other friends and family?
...by strangers?

If the respondent said the child was "mostly" understood by all three groups, then no delays in language development were recorded (71%).

	None	Some	*Missing*
Delays in language development	71%	29%	*2*

Low birth weight (Sweep 1)

Birth weight was recorded at sweep 1. Some parents consulted their health record book to check this, while others did not. This is not thought to be an issue, as birth weight is commonly discussed by new mothers, and so memory should not be a problem. Low birth weight was defined according to the normal definition of being less than 2.5 kg (5%).

	Yes	No	*Missing*
Low birth weight	5%	95%	*3*

Child's general health (Sweeps 1 to 3)

At each sweep, the respondent was asked to assess the child's health in general. If it was described as good or very good in all 3 sweeps, then it was recorded as "always good", else it was recorded as "temporarily or permanently fair or poor".

	Always good	Not always good	*Missing*
Child's general health	89%	11%	*12*

This is another subjective set of questions. No timescale is suggested, so one parent could interpret this as meaning whether the child has a cold at the moment, while another considers only longstanding illnesses or disabilities.

Ethnicity

The full set of categories is not provided on the publicly available data, although the small number of cases in non-white categories would not have aided the analysis. The non-white group are likely to be very diverse, and any differences highlighted between the two groups may be down to other factors, such as income, language, or a lack of social networks.

	White	Non-white	*Missing*
Child's ethnicity	97%	3%	*2*

Characteristics of parents
At least one parent not in good health (Sweep 2)

Unlike for the child, data from only one sweep was used to assess general health. Use of sweep 2 data allowed both parents to respond, so a variable could be derived to record whether either parent says they are in fair or poor health, or both are in good health. Again, it could be considered quite subjective.

	Yes	No	*Missing*
At least one parent not in good health	21%	79%	*67*

As for all variables using the paternal self-completion questionnaire, there are a large number of cases with missing data, which may affect the analyses.

Ethnicity

The same comments apply as for the child's ethnic status.

	White	Non-white	*Missing*
Respondent's ethnicity	97%	3%	*2*

Maternal and paternal stress (Sweep 2)

Both parents were asked, in the self-completion section of the interview, about how they felt over the past week. The three statements used to derive the stress scale were:

I found myself getting upset rather easily
I found it difficult to relax
I found that I was very irritable

Each of these allowed answers from 0 ("not at all") to 3 ("very much"). Responses to the 3 questions were summed, to give a scale of 0 to 9, which were recoded as "low" (0 to 2), moderate (3) and high (4 to 9).

	Low	Moderate	High	*Missing*
Maternal level of stress	61%	25%	14%	*4*
Paternal level of stress	70%	19%	11%	*67*

These categories of high, medium and low were based purely on what fitted in best with the analysis, rather than any medical understanding of stress.

Maternal and paternal depression (Sweep 2)

The same set of questions also asks for responses to three statements used to derive the depression scale. Response categories were as above. The three statements were:

I felt that I had nothing to look forward to
I felt sad and depressed
I was unable to become enthusiastic about anything

This time, a scale score of 0 was described as "low", 1 or 2 was "moderate", and 3 or more was "high". Again, these were based purely on what fitted the analysis.

	Low	Moderate	High	*Missing*
Maternal level of depression	62%	24%	14%	*5*
Paternal level of depression	63%	25%	12%	*67*

Mother's and father's age at birth of study child (Sweep 3)

The sweep 3 dataset provides more detailed information about the ages of household members, not available at other sweeps. Using this information, it is possible to derive the ages of the parents at the birth of the child, in 5 year age groups.

	< 25	25 to 29	30 to 34	35 +	*Missing*
Mother's age at birth of child	13%	23%	38%	26%	*15*
Father's age at birth of child	7%	19%	35%	39%	*22*

Using sweep 3 data is slightly problematic, in that an additional 21 cases have to be dropped from the dataset. The criteria for inclusion in the analysis is having sufficient responses at sweeps 2 and 4 to determine collaboration, and the SDQ scores. Some respondents did not take part in the sweep 3 survey, but returned for sweep 4.

Difference in parents' ages (Sweep 3)

Use of sweep 3 data is necessary to accurately assess the difference between the parents' ages. As analysis is only included for couples who are together at both sweeps 2 and 4, the difference in ages is obviously applicable at these sweeps as well. However, non-birth parents are included in the analysis, so this difference should not be interpreted as the difference in age at birth. For reasons of multicollinearity, this variable cannot be included with both the mother's and father's ages in any of the analysis.

	Mother older by 5 years	Father older by 5 years	Within 5 years	*Missing*
Difference in parents ages	4%	21%	75%	*23*

Mother's and father's highest level of education (Sweep 2)

Both parents were asked to provide information about all of their qualifications. This information was used to derive the highest level of education in a slightly different way to that used in the GUS reports. In previously published material, vocational qualifications were given a separate category, with the implication that all vocational qualifications were above the standard of A levels / highers, and below that of degrees. This is not true, so vocational qualifications were reassigned to the appropriate level, to give an ordinal classification: no qualification; GCSEs / Standard Grades / NVQ level 2 or below; A levels / Highers / NVQ level 3 or equivalent; HNC, HND, NVQ level 4 or equivalent; and university degree / NVQ level 5 or equivalent.

	No quals	GCSEs	A levels	HNC/D	Degree	*Missing*
Mother's education	6%	25%	19%	13%	37%	*6*
Father's education	8%	28%	18%	15%	31%	*62*

Economic situation of household
Mother and father employed (Sweep 2)

	Full-time	Part-time	Not working	*Missing*
Maternal employment status	24%	45%	31%	*3*
Paternal employment status	89%	4%	7%	*3*

Full-time employment was recorded as working 30 or more hours in a normal week.

Household employment structure (Sweep 2)

The above variables were also combined, to provide a household employment structure.

	Father FT, Mother not working	Father FT, Mother PT	Both FT	Mother FT, Father not FT	Neither FT	*Missing*
HH employment structure	26%	42%	20%	3%	7%	*0*

Socioeconomic classification (Sweep 2)

The household socio-economic classification was used, rather than individual classifications. This was defined as the classification of the main earner in the household. If neither parent were working, this was taken to be the higher classification, based on previous employment. If only one parent were working, this was her or his classification. If both parents were working full-time, the higher classification was assumed. If both were working, but at least one was not working full-time, the classification was taken from the one working more hours, on the assumption that they are more likely to be the higher earner. This is a slightly different derivation to that used on the publicly available datasets, but should more accurately reflect the definition.

	Managerial and professional occupations	Intermediate occupations	Small employers and own account workers	Lower supervisory and technical occupations	Semi-routine / routine occupations and never worked
Household socioeconomic classification	55%	7%	11%	13%	14%
				Missing	*0*

This classification, based on employment relationships, is slightly problematic, in that it is not necessarily ordinal. Small employers and own account workers, may be in various types of employment that could be classed higher or lower on the scale.

Low income benefits (Sweep 2)

The main respondent was asked about benefits she received, or were received by her partner. A variable was derived to determine whether either partner was in receipt of any of the following low income benefits: income support, jobseekers' allowance, housing benefit or council tax benefit.

	Yes	No	*Missing*
On low income benefits	5%	95%	*0*

Disability benefits (Sweep 2)

A variable was derived to determine whether either partner was in receipt of any of the following disability benefits: incapacity benefit, disability living allowance or severe disablement allowance.

	Yes	No	*Missing*
On disability benefits	7%	93%	*0*

Benefits (Sweep 2)

A further variable was derived to determine whether either partner was in receipt of any low income or disability benefits

	Yes	No	*Missing*
On low income or disability benefits	10%	90%	*0*

Duration of maternity leave (Sweep 1)

The duration of maternity leave taken with respect to the study child was recorded.

	Up to 90 days	91 to 180 days	181 to 270 days	271 days or more	Not in employment at time of birth
Duration of maternity leave	10%	37%	12%	9%	31%
				Missing	*23*

Income deprivation (Sweeps 1 to 3)

Income deprivation was defined as being in the bottom 20% of equivalised incomes. These were calculated on the whole dataset as having an income of <£8,410 in sweep 1, <£10,000 in sweep 2 and < £11,251 in sweep 3. If the household was in the bottom 20% for one sweep only, this was described as "temporary income

deprivation". If they were in the bottom 20% for more than one sweep, this was described as "repeated income deprivation". Otherwise, they were not in income deprivation.

Equivalised income is an adaptation of that used by Barnes, Chanfreau and Tomaszewski (2010), which is itself an adaptation of the OECD income equivalence scale. An equivalence factor is calculated as 0.67 for the first adult in the household, plus 0.33 for each subsequent adult and 0.2 for each child. Children have been taken as under the age of 16, rather than the OECD definition of under the age of 14, as the data does not differentiate between those aged 12 to 15. Thus a two adult household has an equivalence factor of 1. A household of 1 adult and 2 children would have an equivalence factor of 1.07. This means that the second household needs an income of 1.07 times that of a two adult household in order to achieve the same standard of living.

In the Growing Up in Scotland study, respondents are asked to give their household income in one of seventeen bands, ranging from less than £4000 to £56,000 or more. Incomes have been assigned to each household based on the midpoint of the band, with the midpoint of the highest band assumed to be £60,000. Equivalised incomes have been calculated by dividing the household income by the equivalence factor.

If data are missing for one sweep only, income deprivation has been imputed based upon the household employment structure (see above). If the household is in income deprivation for the two sweeps of which income information is available, they are in repeated income deprivation. If they are in income deprivation for one of the two sweeps, and in the third they have less employment than in the one in which they were not in income deprivation, then they are in repeated income deprivation. If they are in income deprivation for one of the two sweeps, and in the third they have at least as much employment as in the one in which they were not in income deprivation, then they are in temporary income deprivation. If they are in income deprivation for neither of the two sweeps for which income information is available, and neither parent is working in the third, they are in temporary income deprivation. If they are in income deprivation for neither of the two sweeps for which income information is available, and they have at least as much employment in the third as in either of the others, they are not in income deprivation. If income deprivation cannot be determined on this basis, it remains missing.

	Repeated	Temporary	None	*Missing*
Income deprivation	9%	8%	83%	*80*

Material deprivation (no. of desired items for household cannot afford) (Sweep 4)

Respondents were asked which of a list of ten items the family has, which they would like to have but cannot afford at the moment, and which they do not want or need at the moment. Not every question applied to every household. The number of items the household could not afford was counted. If more than 3 items were either not applicable or not wanted, the variable was set to missing. The ten items were:

a holiday away from home for at least one week a year, whilst not staying with relatives at their home;
friends or family around for a drink or meal at least once a month;
two pairs of all weather shoes for all adults (over 16) in the household;
enough money to keep your home in a decent state of decoration;
household contents insurance;
regular savings of £10 a month or more for rainy days or retirement;
replacement of any worn out furniture;
replacement or repair of major electrical goods such as a refrigerator or a washing machine, when broken;
a small amount of money to spend each week on self (not on family); and
a hobby or leisure activity.

	None	One or two	Three or more	*Missing*
Number of items cannot afford for household	62%	24%	14%	*0*

Material deprivation (no. of desired items for children cannot afford) (Sweep 4)

Respondents were asked which of a list of nine items the children have, which they would like to have but the family cannot afford at the moment, and which they do not want or need at the moment. Not every question applied to every household. The number of items the family could not afford was counted. If more than 3 items were either not applicable or not wanted, the variable was set to missing. The nine items were:

a family holiday away from home for at least one week a year;
enough bedrooms for every child of 10 or over of a different sex to have their own bedroom (if 2 or more children over 10 of opposite sex);
leisure equipment such as sports equipment or a bicycle;
celebrations on special occasions such as birthdays, Christmas or other religious festivals;
swimming at least once a month;
a hobby or leisure activity;
friends around for tea or a snack once a fortnight;
toddler group/nursery/playgroup at least once a week (if younger sibling in household);
school trips.

	None	One	Two or more	*Missing*
Number of items cannot afford for children	85%	13%	2%	*0*

Housing tenure (Sweep 2)

	Private sector renting	social sector renting	owns / buying with a mortgage	*Missing*
Housing tenure	5%	12%	82%	*2*

Social support
Support network (Sweep 2)

As part of the self-completion section, respondents were asked the following about their close relationships:

> *Not counting people who live with you, which of the following statements best describes how many people you have a close relationship with?*

	Many	Some	None, one or two	*Missing*
Number of close relationships	29%	46%	25%	*2*

As described in chapter 5, this is one part of having a social support network, though not the whole picture. Understanding of the term "close relationship" is likely to differ across respondents.

Opportunity to leave child with someone at short notice (Sweep 1)

Another aspect of social support is being able to leave a child with someone at short notice, so that one can, for example, fulfil work commitments. This is the variable used in chapters 6 and 7 to distinguish between different types of collaborator.

Three questions were asked about the ease with which the respondent could leave the child with someone else:

> *If you needed to do any of the following things, how easy or difficult would it be to find someone to help you out at short notice – for example, in an emergency of some kind?*
>
> *... leave {childname} with someone for a couple of hours during the day*
> *... leave {childname} with someone for a whole day*
> *... leave {childname} with someone overnight*

If the answer to all three questions was that it was easy or very easy, then it was considered always easy to leave someone at short notice.

	Easy	Not easy	*Missing*
Ease of leaving child with someone	51%	49%	*1*

Local neighbourhood
Area deprivation (Sweep 2)

Whether the respondent lives in one of the 20% most deprived areas in Scotland, according to Scottish Index of Multiple Deprivation, based on the home postcode.

	Yes	No	*Missing*
Area deprivation	13%	87%	*11*

Area deprivation (Sweeps 1 to 3)

An alternative measure was derived to match that for income deprivation. If the household was living in one of the 20% most deprived areas, according to Scottish Index of Multiple Deprivation, for all 3 sweeps, they were recorded as being in "persistent" deprivation. Otherwise they were in temporary area deprivation, or not in area deprivation. The 2006 deprivation index was used for all three sweeps, so the household could only move out of the bottom 20% if they moved home.

	Persistent	Temporary or none	*Missing*
Area deprivation	11%	89%	*25*

Satisfaction with area (Sweep 3)

At sweep 3, the respondent was asked:

How satisfied or dissatisfied are you with the area you live in?

Responses were recoded into very or fairly satisfied, or not satisfied (including neither satisfied nor dissatisfied).

	Satisfied	Not satisfied	*Missing*
Satisfaction with area in which live	11%	89%	*14*

A9 Supplementary tables for chapter 8

Table A9.1 Logistic regression models predicting borderline / abnormal and below average scores on the SDQ emotional symptoms scale, sweep 4

	Model 1: Dependent variable: borderline / abnormal emotional symptoms			Model 2: Dependent variable: above average emotional symptoms		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Paternal involvement						*.018*
Higher paternal involvement				-0.317	0.728	*.018*
Base category: Lower paternal involvement						
Frequency of visits to friends with young children						*.001*
Less than once a fortnight				0.417	1.518	*.001*
Base category: At least once a fortnight						
Parents sing or recite nursery rhymes with child						*.050*
No more than a few times a week				0.356	1.427	*.050*
Base category: On most days						
Study child's birth order			*.000*			*.001*
Third or later	-1.187	0.305	*.002*	-0.706	0.494	*.001*
Second	-0.799	0.450	*.000*	-0.574	0.564	*.001*
Base category: First						
Child's general health						*.026*
At least one sweep in fair or poor health				0.474	1.607	*.026*
Base category: Always good or very good						
Maternal stress			*.000*			*.000*
High (4+)	1.386	3.999	*.000*	0.929	2.532	*.000*
Moderate (3)	0.703	2.019	*.011*	0.439	1.551	*.009*
Base category: Low (0-2)						

	Model 1: Dependent variable: borderline / abnormal emotional symptoms			Model 2: Dependent variable: above average emotional symptoms		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Paternal depression						*.033*
High (3+)				0.503	1.653	*.037*
Moderate (1,2)				0.351	1.421	*.031*
Base category: Low (0)						
Social support: ease of leaving child with someone						*.044*
Not easy				-0.290	0.749	*.044*
Base category: Easy						
Income deprivation			*.006*			
Repeated	0.371	1.449	*.272*			
Temporary	0.965	2.625	*.001*			
Base category: No						
Material deprivation (household)			*.005*			
Unable to afford three or more items	0.864	2.372	*.002*			
Unable to afford one or two items	0.573	1.773	*.025*			
Base category: Able to afford all items for children						
Intercept	-2.766	0.063	*.000*	-0.699	0.497	*.000*
Sample size	*1,185*			*1,183*		
Nagelkerke R square	.150			.101		

Collaborative parenting significant in first model when first 100 cases dropped (p = 0.048)

Growing Up in Scotland, child cohort, weighted

Table A9.2 Ordinal regression model predicting scores on the SDQ emotional symptoms scale, sweep 4

	B	Sig.
Collaborative parenting		*.003*
Collaborative	-0.246	*.003*
Base category: non-collaborative		
Frequency of visits to friends with young children		*.004*
Less than once a fortnight	0.182	*.004*
Base category: At least once a fortnight		
Parents play with child		*.034*
No more than a few times a week	0.234	*.034*
Base category: On most days		
Study child's birth order		*.000*
Third or later	-0.315	*.001*
Second	-0.289	*.000*
Base category: First		
Child's general health		*.007*
At least one sweep in fair or poor health	0.305	*.007*
Base category: Always good or very good		
Maternal stress		*.001*
High (4+)	0.469	*.000*
Moderate (3)	0.179	*.044*
Base category: Low (0-2)		

Cont…

…Cont

	B	Sig.
Maternal depression		*.021*
High (3+)	0.183	*.110*
Moderate (1,2)	0.188	*.008*
Base category: Low (0)		
Father's age at birth of study child		*.039*
Under 25	0.083	*.546*
25 to 29	0.228	*.015*
35 and above	-0.020	*.763*
Base category: 30 to 34		
Mother employed		*.040*
Not working	0.194	*.020*
Part-time	0.175	*.028*
Base category: Full-time		
Threshold		
SDQ Emotional symptoms score sweep 4 = 0	-0.394	*.000*
SDQ Emotional symptoms score sweep 4 = 1	0.356	*.000*
SDQ Emotional symptoms score sweep 4 = 2	0.786	*.000*
SDQ Emotional symptoms score sweep 4 = 3	1.135	*.000*
Sample size	*1,235*	
Nagelkerke R square	.109	

Dependent variable: Banded SDQ emotional symptoms score
Link function: Complementary Log Log
Grow ing Up in Scotland, child cohort, w eighted

Table A9.3 Logistic regression models predicting borderline / abnormal and below average scores on the SDQ conduct problems scale, sweep 4

	Model 1: Dependent variable: borderline / abnormal conduct problems score			Model 2: Dependent variable: above average conduct problems score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Relationship quality			*.014*			*.000*
High quality relationship	-0.538	0.584	*.014*	-0.753	0.471	*.000*
Base category: Lower quality relationship						
Parents read to child						*.004*
No more than a few times a week				0.485	1.625	*.004*
Base category: On most days						
Uses group childcare, e.g. nursery or creche			*.046*			*.015*
Yes	0.274	1.316	*.046*	0.293	1.341	*.015*
Base category: No						
At least one parent not in good health						*.036*
Yes				0.367	1.444	*.036*
Base category: No						
Maternal stress			*.000*			*.000*
High (4+)	0.829	2.291	*.000*	0.716	2.047	*.000*
Moderate (3)	0.393	1.481	*.013*	0.289	1.336	*.077*
Base category: Low (0-2)						
Mother's age at birth of study child						*.037*
Under 25				0.312	1.367	*.123*
25 to 29				0.276	1.318	*.147*
35 and above				-0.217	0.805	*.157*
Base category: 30 to 34						
Father's age at birth of study child			*.001*			
Under 25	0.518	1.678	*.050*			
25 to 29	0.106	1.112	*.550*			
35 and above	-0.384	0.681	*.031*			
Base category: 30 to 34						

	Model 1: Dependent variable: borderline / abnormal conduct problems score			Model 2: Dependent variable: above average conduct problems score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Highest level of qualification of mother			*.001*			
No qualification	1.184	3.267	*.000*			
GCSEs / Standard Grades / NVQ level 2 or below	0.547	1.728	*.005*			
A levels / Highers / NVQ level 3 or equiv	0.241	1.272	*.225*			
HNC, HND, NVQ level 4 or equiv	0.134	1.143	*.585*			
Base category: Degree / NVQ level 5 or equiv						
Household socio-economic classification						*.005*
Semi-routine / routine occupations and never worked				-0.159	0.853	*.469*
Lower supervisory and technical occupations				0.220	1.246	*.182*
Small employers and own account workers				-0.246	0.782	*.318*
Intermediate occupations				0.859	2.360	*.001*
Base: Managerial and professional occupations						
Income deprivation						*.020*
Repeated				0.538	1.713	*.017*
Temporary				0.436	1.547	*.064*
Base category: No						
Material deprivation (children)			*.003*			
Unable to afford two or more items	-1.352	0.259	*.019*			
Unable to afford one item	0.406	1.500	*.016*			
Base category: Able to afford all items for children						
Scottish Index of Multiple Deprivation						*.015*
Live in one of 20% most deprived areas				0.433	1.542	*.015*
Base category: Do not live in most deprived areas						
Satisfaction with area			*.015*			
Respondent not satisfied with area in which they live	0.550	1.734	*.015*			
Base category: respondent satisfied with area						
Intercept	-1.793	0.166	*.000*	-0.715	0.489	*.000*
Sample size	*1,237*			*1,116*		
Nagelkerke R square	.132			.151		

Growing Up in Scotland, child cohort, weighted

Table A9.4 Ordinal regression model predicting scores on the SDQ conduct problems scale, sweep 4

	B	Sig.
Collaborative parenting		*.021*
Collaborative	-0.199	*.021*
Base category: non-collaborative		
Relationship quality		*.001*
High quality relationship	-0.310	*.001*
Base category: Lower quality relationship		
Parents play at recognising words and shapes, etc.		*.008*
Less than once a week	0.343	*.008*
Base category: At least once a week		
Uses group childcare, e.g. nursery or creche		*.023*
Yes	0.161	*.023*
Base category: No		
Maternal stress		*.000*
High (4+)	0.615	*.000*
Moderate (3)	0.179	*.018*
Base category: Low (0-2)		
Mother's age at birth of study child		*.001*
Under 25	0.282	*.003*
25 to 29	0.183	*.053*
35 and above	-0.101	*.266*
Base category: 30 to 34		

Cont…

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	B	Sig.
Difference in parents' ages		*.047*
Mother older by at least 5 years	0.362	*.036*
Father older by at least 5 years	-0.116	*.170*
Base category: Similar ages		
Highest level of qualification of mother		*.004*
No qualification	0.492	*.005*
GCSEs / Standard Grades / NVQ level 2 or below	0.328	*.000*
A levels / Highers / NVQ level 3 or equiv	0.195	*.048*
HNC, HND, NVQ level 4 or equiv	0.188	*.092*
Base category: Degree / NVQ level 5 or equiv		
Material deprivation (children)		*.012*
Unable to afford two or more items	-0.388	*.047*
Unable to afford one item	0.208	*.027*
Base category: Able to afford all items for children		
Threshold		
SDQ conduct problems score sweep 4 = 0	-0.839	*.000*
SDQ conduct problems score sweep 4 = 1	0.080	*.396*
SDQ conduct problems score sweep 4 = 2	0.789	*.000*
SDQ conduct problems score sweep 4 = 3	1.303	*.000*
Sample size	*1,234*	
Nagelkerke R square	.135	

Dependent variable: Banded SDQ conduct problems score
Link function: Complementary Log Log
Collaborative parenting not significant when first 100 cases dropped (p = 0.100)
Growing Up in Scotland, child cohort, weighted

Table A9.5 Logistic regression models predicting borderline / abnormal and below average scores on the SDQ hyperactivity scale, sweep 4

	Model 1: Dependent variable: borderline / abnormal hyperactivity score			Model 2: Dependent variable: above average hyperactivity score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Collaborative parenting			*.015*			
Collaborative	-0.548	0.578	*.015*			
Base category: non-collaborative						
Parents paint or draw with child			*.032*			*.001*
No more than a few times a week	0.358	1.431	*.032*	0.415	1.515	*.001*
Base category: On most days						
Parents allow child to watch TV						*.007*
For 3 or more hours a day				0.587	1.798	*.007*
Base category: for less than 3 hours a day						
Uses formal individual childcare, e.g. childminder						*.012*
Yes				0.527	1.693	*.012*
Base category: No						
Sex of study child			*.007*			*.007*
Male	0.472	1.604	*.007*	0.368	1.445	*.007*
Base category: Female						
Study child's birth order						*.049*
Third or later				-0.428	0.652	*.026*
Second				-0.273	0.761	*.094*
Base category: First						
Delays in language development			*.001*			*.000*
Yes	0.610	1.840	*.001*	0.501	1.651	*.000*
Base category: No						
At least one parent not in good health			*.019*			
Yes	0.437	1.547	*.019*			
Base category: No						
Respondent's ethnicity			*.016*			
Non-white	-2.077	0.125	*.016*			
Base category: White						

	Model 1: Dependent variable: borderline / abnormal hyperactivity score			Model 2: Dependent variable: above average hyperactivity score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Maternal stress			*.030*			*.000*
High (4+)	0.650	1.915	*.012*	1.028	2.795	*.000*
Moderate (3)	0.282	1.326	*.166*	0.325	1.385	*.039*
Base category: Low (0-2)						
Mother's age at birth of study child						*.001*
Under 25				0.501	1.650	*.034*
25 to 29				0.127	1.136	*.439*
35 and above				-0.512	0.599	*.007*
Base category: 30 to 34						
Father's age at birth of study child			*.003*			
Under 25	0.634	1.885	*.071*			
25 to 29	0.368	1.445	*.147*			
35 and above	-0.737	0.479	*.007*			
Base category: 30 to 34						
Difference in parents' ages			*.012*			*.001*
Mother older by at least 5 years	0.880	2.410	*.033*	0.944	2.570	*.003*
Father older by at least 5 years	0.461	1.585	*.044*	-0.291	0.747	*.040*
Base category: Similar ages						
Father employed			*.012*			
Not working	-1.042	0.353	*.013*			
Part-time	-1.032	0.356	*.061*			
Base category: Full-time						
Income deprivation			*.007*			*.020*
Repeated	0.889	2.431	*.002*	0.675	1.964	*.008*
Temporary	0.203	1.225	*.569*	0.277	1.319	*.222*
Base category: No						
Material deprivation (household)			*.004*			
Unable to afford three or more items	0.689	1.992	*.002*			
Unable to afford one or two items	-0.087	0.917	*.675*			
Base category: Able to afford all items for children						
Intercept	-2.702	0.067	*.000*	-1.086	0.338	*.000*
Sample size	*1,112*			*1,171*		
Nagelkerke R square	.196			.160		

Growing Up in Scotland, child cohort, weighted

Table A9.6 Ordinal regression model predicting scores on the SDQ hyperactivity scale, sweep 4

	B	Sig.
Parents paint or draw with child		*.000*
No more than a few times a week	0.460	*.000*
Base category: On most days		
Uses formal individual childcare, e.g. childminder		*.040*
Yes	0.329	*.040*
Base category: No		
Sex of study child		*.002*
Male	0.365	*.002*
Base category: Female		
Study child's birth order		*.027*
Third or later	-0.424	*.011*
Second	-0.254	*.069*
Base category: First		
Delays in language development		*.002*
Yes	0.413	*.002*
Base category: No		
Child's general health		*.010*
At least one sweep in fair or poor health	0.459	*.010*
Base category: Always good or very good		
Maternal stress		*.000*
High (4+)	0.807	*.000*
Moderate (3)	0.244	*.070*
Base category: Low (0-2)		
Mother's age at birth of study child		*.001*
Under 25	0.469	*.007*
25 to 29	0.142	*.326*
35 and above	-0.390	*.009*
Base category: 30 to 34		

Cont…

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	B	Sig.
Difference in parents' ages		*.005*
Mother older by at least 5 years	0.973	*.005*
Father older by at least 5 years	-0.195	*.085*
Base category: Similar ages		
Highest level of qualification of mother		*.011*
No qualification	0.701	*.013*
GCSEs / Standard Grades / NVQ level 2 or below	0.463	*.001*
A levels / Highers / NVQ level 3 or equiv	0.254	*.077*
HNC, HND, NVQ level 4 or equiv	0.419	*.015*
Base category: Degree / NVQ level 5 or equiv		
Mother employed		*.041*
Not working	-0.394	*.012*
Part-time	-0.176	*.139*
Base category: Full-time		
Income deprivation		*.026*
Repeated	0.643	*.007*
Temporary	0.117	*.590*
Base category: No		
Material deprivation (children)		*.004*
Unable to afford two or more items	0.236	*.623*
Unable to afford one item	0.582	*.001*
Base category: Able to afford all items for children		
Threshold		
SDQ hyperactivity score sweep 4 = 0 or 1	-0.253	*.175*
SDQ hyperactivity score sweep 4 = 2	0.501	*.008*
SDQ hyperactivity score sweep 4 = 3	1.176	*.000*
SDQ hyperactivity score sweep 4 = 4	1.976	*.000*
SDQ hyperactivity score sweep 4 = 5	2.769	*.000*
Sample size	*1,167*	
Nagelkerke R square	.181	

Dependent variable: Banded SDQ hyperactivity score
Link function: Logit
Growing Up in Scotland, child cohort, weighted

Table A9.7 Logistic regression models predicting borderline / abnormal and below average scores on the SDQ peer problems scale, sweep 4

	Model 1: Dependent variable: borderline / abnormal peer problems score			Model 2: Dependent variable: above average peer problems score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Collaborative parenting			*.006*			
Collaborative	-0.723	0.486	*.006*			
Base category: non-collaborative						
Relationship quality						*.022*
High quality relationship				-0.411	0.663	*.022*
Base category: Lower quality relationship						
Frequency of visits to friends with young children						*.008*
Less than once a fortnight				0.401	1.494	*.008*
Base category: At least once a fortnight						
Number of children in household						*.030*
Four or more				0.083	1.086	*.813*
Three				-0.547	0.579	*.007*
Two				-0.383	0.682	*.026*
Base category: One						
Delays in language development			*.031*			*.014*
Yes	0.454	1.575	*.031*	0.377	1.458	*.014*
Base category: No						
At least one parent not in good health			*.018*			
Yes	0.590	1.804	*.018*			
Base category: No						
Respondent's ethnicity						*.005*
Non-white				1.354	3.872	*.005*
Base category: White						
Maternal stress						*.005*
High (4+)				0.552	1.737	*.003*
Moderate (3)				0.327	1.387	*.026*
Base category: Low (0-2)						
Mother's age at birth of study child						*.025*
Under 25				0.503	1.654	*.022*
25 to 29				0.404	1.498	*.017*
35 and above				0.203	1.225	*.186*
Base category: 30 to 34						

	Model 1: Dependent variable: borderline / abnormal peer problems score			Model 2: Dependent variable: above average peer problems score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Difference in parents' ages			*.023*			
Mother older by at least 5 years	0.559	1.749	*.252*			
Father older by at least 5 years	0.515	1.673	*.007*			
Base category: Similar ages						
Highest level of qualification of mother						*.007*
No qualification				0.861	2.365	*.004*
GCSEs / Standard Grades / NVQ level 2 or below				0.409	1.505	*.024*
A levels / Highers / NVQ level 3 or equiv				0.392	1.479	*.019*
HNC, HND, NVQ level 4 or equiv				0.042	1.043	*.815*
Base category: Degree / NVQ level 5 or equiv						
Support network			*.006*			*.021*
None or few close relationships	0.759	2.136	*.005*	0.528	1.696	*.006*
Some close relationshiops	0.042	1.043	*.848*	0.131	1.141	*.333*
Base category: Many close relationships						
Father employed			*.023*			
Not working	-1.359	0.257	*.009*			
Part-time	0.113	1.120	*.746*			
Base category: Full-time						
Material deprivation (household)			*.001*			
Unable to afford three or more items	0.865	2.374	*.000*			
Unable to afford one or two items	0.285	1.330	*.176*			
Base category: Able to afford all items for children						
Housing Tenure			*.009*			
Private sector renting	0.794	2.212	*.003*			
Social renting	0.361	1.435	*.254*			
Base Category: Owns / buying with a mortgage						
Intercept	-2.719	0.066	*.000*	-0.624	0.536	*.004*
Sample size	*1,170*			*1,236*		
Nagelkerke R square	.149			.145		

Collaborative parenting drops below the 1% significance level in first model when first 100 cases dropped (p = 0.012)
Growing Up in Scotland, child cohort, weighted

Table A9.8 Ordinal regression model predicting scores on the SDQ peer problems scale, sweep 4

	B	Sig.
Collaborative parenting		*.030*
Collaborative	-0.165	*.030*
Base category: non-collaborative		
Number of children in household		*.014*
Four or more	-0.019	*.922*
Three	-0.335	*.002*
Two	-0.225	*.019*
Base category: One		
Delays in language development		*.002*
Yes	0.248	*.002*
Base category: No		
At least one parent not in good health		*.043*
Yes	0.186	*.043*
Base category: No		
Respondent's ethnicity		*.002*
Non-white	0.576	*.002*
Base category: White		
Maternal stress		*.017*
High (4+)	0.305	*.008*
Moderate (3)	0.161	*.037*
Base category: Low (0-2)		
Paternal stress		*.025*
High (3+)	-0.165	*.122*
Moderate (1,2)	0.150	*.074*
Base category: Low (0)		
Mother's age at birth of study child		*.020*
Under 25	0.312	*.007*
25 to 29	0.141	*.087*
35 and above	0.215	*.044*
Base category: 30 to 34		

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	B	Sig.
Highest level of qualification of mother		*.022*
No qualification	0.334	*.033*
GCSEs / Standard Grades / NVQ level 2 or below	0.259	*.011*
A levels / Highers / NVQ level 3 or equiv	0.227	*.016*
HNC, HND, NVQ level 4 or equiv	0.181	*.104*
Base category: Degree / NVQ level 5 or equiv		
Support network		*.000*
None or few close relationships	0.384	*.000*
Some close relationshiops	0.109	*.172*
Base category: Many close relationships		
Father employed		*.018*
Not working	-0.427	*.006*
Part-time	0.092	*.583*
Base category: Full-time		
Material deprivation (household)		*.002*
Unable to afford three or more items	0.320	*.001*
Unable to afford one or two items	0.079	*.275*
Base category: Able to afford all items for children		
Threshold		
SDQ peer problems score sweep 4 = 0	0.086	*.469*
SDQ peer problems score sweep 4 = 1	0.820	*.000*
SDQ peer problems score sweep 4 = 2	1.245	*.000*
SDQ peer problems score sweep 4 = 3	1.599	*.000*
Sample size	*1,170*	
Nagelkerke R square	.158	

Dependent variable: Banded SDQ peer problems score
Link function: Complementary Log Log
Collaborative parenting not significant w hen first 100 cases dropped (p = 0.061)
Grow ing Up in Scotland, child cohort, w eighted

Table A9.9 Logistic regression models predicting borderline / abnormal and above average scores on the SDQ prosocial scale, sweep 4

	Model 1: Dependent variable: borderline / abnormal prosocial score			Model 2: Dependent variable: above average prosocial score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Collaborative parenting			*.004*			*.002*
Collaborative	-0.969	0.380	*.004*	0.526	1.692	*.002*
Base category: non-collaborative						
Parents read to child						*.017*
No more than a few times a week				-0.381	0.683	*.017*
Base category: On most days						
Parents paint or draw with child			*.002*			
No more than a few times a week	0.746	2.109	*.002*			
Base category: On most days						
Parents sing or recite nursery rhymes with child						*.047*
No more than a few times a week				-0.331	0.718	*.047*
Base category: On most days						
Sex of study child			*.013*			*.000*
Male	0.604	1.829	*.013*	-0.492	0.611	*.000*
Base category: Female						
Delays in language development			*.005*			
Yes	0.662	1.938	*.005*			
Base category: No						
Child's general health						*.013*
At least one sweep in fair or poor health				-0.425	0.654	*.013*
Base category: Always good or very good						
Respondent's ethnicity						*.000*
Non-white				-1.404	0.245	*.000*
Base category: White						

	Model 1: Dependent variable: borderline / abnormal prosocial score			Model 2: Dependent variable: above average prosocial score		
	B	Exp(B)	Sig.	B	Exp(B)	Sig.
Maternal stress						*.013*
High (4+)				-0.463	0.629	*.007*
Moderate (3)				-0.226	0.798	*.115*
Base category: Low (0-2)						
Support network						*.020*
None or few close relationships				-0.532	0.587	*.005*
Some close relationshiops				-0.150	0.861	*.333*
Base category: Many close relationships						
Father employed			*.022*			
Not working	-0.472	0.624	*.398*			
Part-time	1.117	3.056	*.011*			
Base category: Full-time						
Parent in receipt of low income or disability benefits						*.032*
Yes				-0.405	0.667	*.032*
No						
Scottish Index of Multiple Deprivation						*.018*
Live in one of 20% most deprived areas				0.426	1.531	*.018*
Base category: Do not live in most deprived areas						
Intercept	-3.546	0.029	*.000*	1.252	3.497	*.000*
Sample size	*1,261*			*1,236*		
Nagelkerke R square	.093			.113		

Growing Up in Scotland, child cohort, weighted

Table A9.10 Ordinal regression models predicting scores on the SDQ prosocial scale, sweep 4

	B	Sig.
Collaborative parenting		*.001*
Collaborative	-0.281	*.001*
Base category: non-collaborative		
Parents read to child		*.018*
No more than a few times a week	0.164	*.018*
Base category: On most days		
Parents paint or draw with child		*.003*
No more than a few times a week	0.155	*.003*
Base category: On most days		
Parents sing or recite nursery rhymes with child		*.016*
No more than a few times a week	0.230	*.016*
Base category: On most days		
Sex of study child		*.003*
Male	0.213	*.003*
Base category: Female		
Delays in language development		*.047*
Yes	0.131	*.047*
Base category: No		
Maternal stress		*.004*
High (4+)	0.290	*.001*
Moderate (3)	0.126	*.098*
Base category: Low (0-2)		
Support network		*.026*
None or few close relationships	0.247	*.007*
Some close relationshiops	0.120	*.141*
Base category: Many close relationships		
Material deprivation (children)		*.017*
Unable to afford two or more items	-0.488	*.004*
Unable to afford one item	-0.008	*.922*
Base category: Able to afford all items for children		
Threshold		
SDQ prosocial score sweep 4 = 10	-0.559	*.000*
SDQ prosocial score sweep 4 = 9	0.231	*.013*
SDQ prosocial score sweep 4 = 8	0.685	*.000*
SDQ prosocial score sweep 4 = 7	1.044	*.000*
SDQ prosocial score sweep 4 = 6	1.461	*.000*
Sample size	*1,259*	
Nagelkerke R square	.083	

Dependent variable: Banded SDQ prosocial score
Link function: Complementary Log Log
Growing Up in Scotland, child cohort, weighted